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ABSTRACT

This manual presents the master lists of 206 job titles of 167 different Dictionary of Occupational Titles (DOT) code numbers which were held by physically handicapped graduates/completers of vocational programs as determined by a business and industry survey and graduate followup. (The project itself is reported in CE 026 163; survey and followup results are in CE 026 164.) Designed to aid vocational educators at all levels in working with physically handicapped persons, this manual contains nine types of information: directions for use of the manual, guidelines for vocational counseling, guidelines for program planning, teaching suggestions for each type of impairment, guidelines for personnel managers and employers, job descriptions from the DOT for each job title in the master lists, master lists of job titles held by physically handicapped employees, annotated bibliography of reading materials, and resource list. The master lists of job titles are arranged in four tables: (1) in alphabetic order, (2) by DOT code number, (3) by type and severity of impairment/handicap, and (4) by vocational program providing training. (YLB)

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ED190787

Part B. Manual

OCCUPATIONAL OPPORTUNITIES FOR THE PHYSICALLY HANDICAPPED

by

Elaine F. Uthe

University of Kentucky

1980

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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SUMMARY REPORT

ASSESSMENT OF THE OCCUPATIONAL OPPORTUNITIES FOR THE PHYSICALLY HANDICAPPED IN VOCATIONAL EDUCATION

by Elaine F. Uthe, University of Kentucky

The goal of vocational educators is to prepare productive workers who contribute to the economic well-being of the nation. Major efforts are aimed at providing physically handicapped people with an equal opportunity for vocational training and successful employment as productive workers in the world of work.

In the past physically handicapped individuals have been "assigned" to certain occupational areas, yet they are capable of performing a great variety of jobs. This project identified job titles now held by physically handicapped employees which would serve as "career models" and which could be used to identify "gaps" in vocational training and employment.

A survey of businesses and industries in Kentucky found 239 physically handicapped employees in 88 companies. The survey included a stratified random sample of businesses and industries by size of company, Standard Industrial Classification, and vocational region (Regions 4, 6, 12, and 15); 165 different job titles were identified as being held by the physically handicapped.

A follow-up survey of 1976-78 graduates/completers of vocational programs from secondary and postsecondary programs in the same vocational regions identified 53 different job titles.

Highlights of the Business and Industry Survey

Only 88 (11.6 percent) of the 761 responding companies indicated that they had physically handicapped employees. Job opportunities seemed to be approximately equal in small, medium, and large companies and averaged about 1 in 50 employees in any company that had physically handicapped employees. The ratio was roughly 1.75 percent of the total number of employees in the survey.

The physically handicapped person is likely to have a "better than expected" opportunity for employment in the services, manufacturing, and transportation companies and a "less than expected" opportunity in the construction and the public administration areas.

Few adaptations to the work space, job tasks, and/or equipment were reported for these employees; therefore, little job redesign has taken place. Although the present employees may not need such modifications, those physically handicapped employees who do need such consideration may not have been hired in the past.

A broad spectrum of physical impairments were reported: 70 (29.3 percent) with health impairments; 57 (23.8 percent) orthopedic; 43 (18 percent) neuromuscular and/or neurological; 30 (12.6 percent) hearing; 22 (9.2 percent) visual; and 1 (.4 percent) with hearing/visual impairments.

Nearly 59 percent of the current physically handicapped employees were employed in or before 1973; 37 percent of these were still holding entry-level jobs according to the employer. There appears to be a slight increase in the number of physically handicapped persons employed in recent years, but the number reported is too small to be considered a trend. The majority (54.6 percent) had only a secondary education.

The physically handicapped employee is still a rarity in the world of work and few if any accommodations were reported. A greater number of companies need to employ physically handicapped individuals; job redesign is more likely to be necessary when and if the applicant has multiple and/or severe impairments.

Highlights from the Graduate/Completer Survey

A total of 364 physically handicapped individuals were identified by regional vocational directors as graduate/completers of secondary/postsecondary programs from 1976-78. Only 67 (18.4 percent) were usable responses; hence, no interpretation can be made from this follow-up.

The physically handicapped graduates/completers held 53 different job titles; most titles may be classified as entry-level ones. Twenty-two were employed full time and twelve were employed part time; fifteen were unemployed and available for work; five were not working and not looking for work; and eleven were in school full time and not employed.

Although physically handicapped employees usually have a rather stable employment record, there is indication that this particular group of graduates/completers experienced unemployment and/or short employment records (less than six months at one job). Again, the total number of responses is very low, and the questionnaire did not differentiate between "permanent" and "summertime" jobs.

An in-depth study of all (or a larger proportion) of the graduates/completers needs to be conducted in order to obtain solid and substantive data.

Final Reports

Part A of this report provides background about the physically handicapped, relevant legislation, and the results of both the business and industry survey and the graduate/completer follow-up.

Part B of this report is in the form of a manual; it presents the master lists of job titles by DICTIONARY OF OCCUPATIONAL TITLES code number, in alphabetic order, by type and severity of impairment, and by program area. Guidelines for using these lists and teaching suggestions are provided; job descriptions for the various job titles are included. An annotated bibliography and a list of resources are available for those who wish to explore the subject in greater depth.

CHAPTER B-1

VOCATIONAL EDUCATION FOR THE PHYSICALLY HANDICAPPED

The goal of vocational education is to prepare productive workers who contribute to the economic well-being of the nation. Vocational programs must be accessible to individuals without regard to race, color, sex, age, handicap, or national origin. This report deals with vocational education for the physically handicapped.

A succinct statement about "Equal Access for Handicapped Students" appeared in the March 21, 1979, FEDERAL REGISTER (Vol. 44, No. 56, page 17166) in relation to educational agencies offering vocational training:

> "Recipients may not deny handicapped students access to vocational education programs or courses because of architectural or equipment barriers, or because of the need for related aids and services or auxiliary aids. If necessary, recipients must: (1) modify instructional equipment; (2) modify or adapt the manner in which the courses are offered; (3) house the program in facilities that are readily accessible to mobility impaired students or alter facilities to make them readily accessible to mobility impaired students; and (4) provide auxiliary aids that effectively make lectures and necessary materials available to postsecondary handicapped students; (5) provide related aids or services that assure secondary students an appropriate education.
>
> Academic requirements that the recipient can demonstrate are essential to a program of instruction or to any directly related licensing requirement will not be regarded as discriminatory. However, where possible, a recipient must adjust those requirements to the needs of individual handicapped students.
>
> Access to vocational program or courses may not be denied handicapped students on the ground that employment opportunities in any occupation or profession may be more limited for handicapped persons than for nonhandicapped persons."

These guidelines explain the civil rights responsibilities of any educational agency receiving federal money for vocational education. Also, they identify directions involved in implementing the various provisions in the Vocational Education Amendments and the Education for All Handicapped Children Act, as the same concepts are interwoven throughout each piece of legislation (see Part A).

Overview

Part B is a manual designed to aid vocational educators at all levels in working with physically handicapped persons. This manual contains nine types of information:

(1) directions for use of the manual
(2) guidelines for vocational counseling
(3) guidelines for program planning
(4) teaching suggestions for each type of impairment
(5) guidelines for personnel managers and employers
(6) job descriptions from the DICTIONARY OF OCCUPATIONAL TITLES for each job title in the master lists
(7) MASTER LISTS OF JOB TITLES HELD BY PHYSICALLY HANDICAPPED EMPLOYEES (from Part A) arranged
  a) in alphabetic order
  b) by DOT code number
  c) by type and severity of impairment/handicap
  d) by vocational program providing training
(8) annotated bibliography of reading materials
(9) resource list

Overall, 206 different job titles with 167 different DOT code numbers were held by physically handicapped employees (see results of business and industry survey and the follow-up of physically handicapped graduates/completers of vocational programs described in Part A). These job titles represent a cross section of possible job titles, but they do not necessarily limit potential occupational opportunities for the physically handicapped to only these job titles.

In fact, the master lists, if examined closely, show gaps in occupational categories for which the physically handicapped should be trained (see guidelines in the program planning section provided later).

Directions for Use

A discussion of the need for vocational education for the physically handicapped, a review of national figures about the physically handicapped, the procedures and results of the business and industry survey, the procedures and results of the physically handicapped graduates/completers from 1976-78 from Kentucky vocational programs, as well as lists of job titles held by the physically handicapped, are all provided in Part A for those who wish to read about the background for Part B. The Table of Contents for Part A appears in Appendix B-1.

The MASTER LISTS OF JOB TITLES in this manual are a combination of job titles from the survey and the follow-up.

Explore the parts of this manual. If you are a counselor, the guidelines on vocational counseling will be especially interesting. If you are a vocational administrator or curriculum developer, the guidelines for program planners will be beneficial. If you are a vocational instructor, the teaching suggestions section is most appropriate. Personnel manager and employers will find some guidelines and suggestions in another section. Job descriptions from the DICTIONARY OF OCCUPATIONAL TITLES are provided for convenience (Appendix B-3).

If you do not find the information here that you want or if you wish to read more about the physically handicapped, an annotated bibliography has been categorized for easy reference (Appendix B-4).

The MASTER LISTS OF JOB TITLES, arranged in different ways for easier use, follow. The 6-digit numbers are DOT code numbers. The three-digit numbers in the "Impairment" columns refer to a type and a severity level if the impairment is in the hearing, visual, hearing/visual, or speech category; if the number begins with a "6," it identifies a disease in the neuromuscular/neurologial category; if it begins with a "7," it names an impairment in another health-related category. These categories are identified on the Physical Impairment Coding Sheet (Exhibit B-1); they are used throughout all the master lists in this report.

In Table B-1, the yellow pages, the job titles are listed in alphabetic order.

In Table B-2, the blue pages, the job titles are listed in consecutive order by the DICTIONARY OF OCCUPATION TITLES number.

In Table B-3, the pink pages, the job titles are listed in order by type and severity of the worker's impairment.

In Table B-4, the job titles have been categorized by vocational program area (see green pages).

EXHIBIT B-1. PHYSICAL IMPAIRMENT CODING SHEET

Hearing Impaired

Code No.	
101	No obvious indication
102	Slight difficulty apparent
103	Moderate difficulty apparent
104	Moderately severe difficulty apparent
105	Severe difficulty apparent

Visually Impaired

Code No.	
201	Physical appearance gives no indication
202	Some very slight indications of the condition, apparent to the trained specialist but not to the layman
203	Some fairly obvious signs of the disability or condition
204	Moderately severe indications of the condition
205	Condition is severe; stands out clearly to all concerned

Both Hearing and Visually Impaired

Code No.	
301	No obvious indications
302	Slight difficulty apparent
303	Moderate difficulty apparent
304	Moderately severe difficulty apparent
305	Severe difficulty apparent

Speech Impaired

Code No.	
401	No difficulty at all, observed or reported
402	Slight difficulty apparent
403	Moderate difficulty apparent
404	Moderately severe difficulty apparent
405	Severe difficulty manifested in this area

Orthopedically Impaired

Code No.	
501	No apparent or reported difficulty
502	A little restriction but not enough to warrant special help
503	Moderate restriction. Can keep up with peers in some ways; in others, needs help or direction of others
504	Moderately severe restrictions
505	Severe restriction of locomotion

Neuromuscularly and Neurologically Impaired

Code No.	
601	Aphasia
602	Cerebral Palsy
603	Dyslexia
604	Epilepsy
605	Muscular Dystrophy
606	Multiple Sclerosis
607	Paraplegia
608	Polio-caused Paralyses
609	Polymyositis
610	Quadriplegia
611	Spina Bifida
612	Spinal Muscular Atrophy
613	Stroke
614	Other (Specify)

Other Health Impaired

Code No.	
701	Accidents (disfigurements)
702	Adolescent Pregnancy
703	Arthritis
704	Asthma
705	Cancer
706	Cystic Fibrosis
707	Diabetes
708	Heart Condition
709	Hemophilia
710	Lead Poisoning
711	Leukemia
712	Nephrosis and Nephritis
713	Rheumatic Fever
714	Sickle Cell Anemia
715	Tuberculosis
716	Other (specify)

TABLE B-1

LIST OF JOB TITLES HELD BY PHYSICALLY HANDICAPPED EMPLOYEES ARRANGED ALPHABETICALLY

216.482	Accounting clerk
216.382	Accounting clerk, data processing
160.167	Accounting manager, office
205.367	Admissions evaluator
785.261	Alteration tailor
723.584	Appliance repairer
729.687	Assembler, electrical access
706.684	Assembler (mfg)
186.117	Assistant vice president (fin)
620.261	Automobile mechanic
620.684	Automobile-mechanic helper
920.687	Bagger, grocery
214.482	Billing clerk
950.131	Boilerhouse superintendent
210.382	Bookkeeper II (educ)
850.683	Bulldozer operator
162.157	Buyer (mfg)
311.477	Carhop
369.384	Carpet cleaner
195.107	Caseworker (social worker)
211.462	Cashier-checker (sales)
216.387	Check-processing clerk I (fin)
355.674	Child-care attendant
241.362	Claims clerk I (insur)
919.687	Cleaner, automobile washer
381.687	Cleaner, commercial
323.687	Cleaner, hospital
381.687	Cleaner, institutional
219.362	Clerk, administrative
209.562	Clerk, general
209.562	Clerk, general (educ)
209.562	Clerk, general (med)
209.587	Clerk, mail room
203.362	Clerk-typist
203.137	Clerk-typist, head
203.362	Clerk-typist, medical
195.107	Community health worker

195.167	Community organization worker
939.687	Company worker (mining)
973.381	Compositor (prtg, pub)
213.362	Computer operator
869.664	Construction worker I
182.167	Contractor (const)
299.477	Cooler worker (dairy prod)
332.271	Cosmetologist
216.382	Cost clerk
168.167	Credit manager
299.367	Customer service clerk
359.677	Day care worker
749.684	Decal applier
355.677	Dietary aide
311.677	Dining room attendant
318.687	Dishwasher
239.367	Dispatcher
379.362	Dispatcher, radio (police)
959.167	Dispatcher, service
017.281	Drafter, assistant (elec)
017.161	Drafter, chief, design (light, heat and power)
017.261	Drafter, commercial
606.682	Drill press operator
729.281	Electric-meter repairer
824.261	Electrician
726.684	Electronics assembler
003.161	Electronics technician
195.267	Eligibility worker III
166.267	Employment counselor
217.382	Encoder (fin)
625.281	Engine repairer, service
401.161	Farmer, grain
401.687	Farmworker, grain
206.362	File clerk I
976.685	Film cutter and splicer
976.684	Film splicer
319.467	Food order expediter
611.685	Forging press operator
611.482	Forging press operator, leader
921.683	Fork lift operator
620.281	Front-end mechanic
953.364	Gas-meter installer
710.381	Gas-regulator repairer
705.684	Grinder
953.367	House-piping inspector
323.687	Housekeeper, medical services
359.677	Houseparent
921.683	Industrial truck operator
601.281	Inspector, tool
869.664	Insulation installer
222.387	Inventory clerk
382.664	Janitor
382.664	Janitor, building

600.380	Job setter, machine shop
869.685	Kettle man (roofing)
203.582	Keypunch operator
078.381	Lab assistant, medical
078.381	Lab technician, medical
559.567	Laborer, general
406.683	Laborer, golf course
361.687	Laborer, laundry
609.684	Laborer, machine shop
381.687	Laborer, museum
899.684	Laborer, road (const)
922.687	Laborer, stores
249.367	Library clerk III
709.281	Locksmith
209.587	Mail Clerk
600.280	Maintenance machinist
638.281	Maintenance mechanic
891.137	Maintenance supervisor
164.117	Manager, advertising
181.117	Manager, bulk plant
185.137	Manager, fast food service
185.137	Manager, fast food (area supervisor)
185.167	Manager, retail store
299.137	Manager, sales
209.587	Marker (ret)
050.067	Marketing research analyst
929.687	Material handler
245.362	Medical records clerk
079.367	Medical records technician
078.361	Medical technologist
203.582	Medical transcriber
209.567	Meter reader
721.281	Motor repairman
529.385	Noodle maker (food proc)
355.674	Nurse's aide
075.374	Nurse, general duty
075.127	Nurse, head
079.374	Nurse, Licensed Practical
075.374	Nurse, office
355.674	Nursing assistant, operating room
186.167	Operations officer (fin)
529.382	Operator, dairy processing equipment
249.367	Order clerk
205.362	Outpatient-admitting clerk
235.662	PBX operator
920.587	Packager, hand (mfg)
741.687	Paint sprayer
740.684	Painter, brush
599.685	Painting machine operator
249.367	Parts-order-and-stock clerk (auto)
215.137	Payroll clerk, chief

143.062	Photographer
650.582	Phototypesetter operator
359.677	Playroom attendant
231.688	Postal distribution clerk
243.367	Post-office clerk
787.682	Power sewing machine operator
611.685	Press operator (mfg)
651.482	Press operator (prtg)
953.362	Pressure controller (gas)
209.687	Price checker
020.162	Programmer
019.167	Project engineer
960.362	Projectionist
217.382	Proofing-machine operator
355.377	Psychiatric aide
078.362	Radiologic technician
222.387	Receiving clerk
237.367	Receptionist
079.361	Respiratory therapist, supervisor
295.367	Safe deposit box rental clerk
292.137	Sales assistant
290.477	Sales clerk
254.357	Sales representative (adver)
274.357	Sales representative (bldrs sup)
279.357	Sales representative (gen mdse)
273.353	Salesperson, automobile
201.362	Secretary
201.362	Secretary, medical
201.362	Secretary, personnel
189.167	Security officer
239.367	Service representative (tel/teleg)
804.281	Sheet metal worker
222.387	Shipping clerk
970.281	Sign writer, hand
625.281	Small engine mechanic
222.387	Stock clerk
299.367	Stock clerk, grocery goods
299.367	Stocker
222.132	Stock supervisor (ret)
749.687	Stripper, paint
189.167	Superintendent, plant protection
860.137	Supervisor, carpenter
213.132	Supervisor, electronic data processing
319.137	Supervisor, food-service
361.137	Supervisor, laundry
921.133	Supervisor, material handling
319.484	Supply service worker (med)
245.137	Surgery clerk
869.567	Surveyor helper
235.662	Switchboard operator
913.463	Taxi driver

913.367	Taxicab starter (dispatcher)
299.357	Telephone solicitor
211.362	Teller (fin)
211.132	Teller, head (fin)
601.280	Tool and die maker
906.683	Truck driver (agric deliveries)
905.663	Truck driver (bldg mat)
929.687	Utility worker (const)
166.267	Veteran's job developer
189.117	Vice president (fin)
960.362	Visual aide
819.384	Welder, combination
819.361	Welder-fitter
819.687	Welder helper

TABLE B-2

LIST OF JOB TITLES HELD BY PHYSICALLY HANDICAPPED IN CONSECUTIVE ORDER BY DOT NUMBER

003.161	Electronics technician
017.161	Drafter, chief, design (light, heat and power)
017.261	Drafter, commercial
017.281	Drafter, assistant (elec)
019.167	Project engineer
020.162	Programmer
050.067	Marketing research analyst
075.127	Nurse, head
075.374	Nurse, general duty
075.374	Nurse, office
078.361	Medical technologist
078.362	Radiologic technician
078.381	Lab assistant, medical
079.361	Respiratory therapist, supervisor
079.367	Medical records technician
079.374	Nurse, Licensed Practical
143.062	Photographer
160.167	Accounting manager, office
162.157	Buyer (mfg)
164.117	Manager, advertising
166.267	Employment counselor
166.267	Veteran's job developer
168.167	Credit manager
181.117	Manager, bulk plant
182.167	Contractor (const)
185.137	Manager, fast food (area supervisor)
185.137	Manager, fast food service
185.167	Manager, retail store
186.117	Assistant vice president (fin)
186.167	Operations officer (fin)
189.117	Vice president (fin)
189.167	Security officer
189.167	Superintendent, plant protection
195.107	Caseworker (social worker)
195.107	Community health worker
195.167	Community organization worker
195.267	Eligibility worker III
201.362	Secretary
201.362	Secretary, medical
201.362	Secretary, personnel
203.137	Clerk-typist, head
203.362	Clerk-typist
203.362	Clerk-typist, medical
203.582	Keypunch operator
203.582	Medical transcriber
205.362	Outpatient-admitting clerk
205.367	Admissions evaluator
206.362	File clerk I
209.562	Clerk, general
209.562	Clerk, general (educ)
209.562	Clerk, general (med)

209.567	Meter reader
209.587	Mail clerk
209.587	Marker (ret)
209.687	Price checker
210.382	Bookkeeper II (educ)
211.132	Teller, head (fin)
211.362	Teller (fin)
211.462	Cashier-checker (sales)
213.132	Supervisor, EDP
213.362	Computer operator
214.482	Billing clerk
215.137	Payroll clerk, chief
216.382	Accounting clerk, data processing
216.382	Cost clerk
216.387	Check-processing clerk I (fin)
216.482	Accounting clerk
217.382	Encoder (fin)
217.382	Proofing-machine operator
219.382	Clerk, administrative
222.132	Stock supervisor (ret)
222.387	Inventory clerk
222.387	Receiving clerk
222.387	Shipping clerk
222.387	Stock clerk
231.688	Postal distribution clerk
235.662	PBX operator
235.662	Switchboard operator
237.367	Receptionist
239.367	Dispatcher
239.367	Service representative (tel/teleg)
241.362	Claims clerk I (insur)
243.367	Post-office clerk
245.137	Surgery clerk
245.362	Medical records clerk
249.367	Library clerk III
249.367	Order clerk
249.367	Parts-order-and-stock clerk (auto)
254.357	Sales representative (adver)
273.353	Salesperson, automobile
274.357	Sales representative (bldrs sup)
279.357	Sales representative (gen mdse)
290.477	Sales clerk
292.137	Sales assistant
295.367	Safe deposit box rental clerk
299.137	Manager, sales
299.357	Telephone solicitor
299.367	Customer service clerk
299.367	Stock clerk, grocery goods
299.367	Stocker
299.477	Cooler worker (dairy prod)
311.477	Carhop
311.677	Dining room attendant
318.687	Dishwasher
319.137	Supervisor, food-service
319.467	Food order expediter
319.484	Supply service worker (med)
323.687	Cleaner, hospital
323.687	Housekeeper (med)
332.271	Cosmetologist
355.377	Psychiatric aide
355.674	Child care attendant
355.674	Nurse's aide
355.674	Nursing assistant, operating room
355.677	Dietary aide
359.677	Day care worker
359.677	Houseparent
359.677	Playroom attendant
361.137	Supervisor, laundry
361.687	Laborer, laundry
369.384	Carpet cleaner
379.362	Dispatcher, radio (police)

381.687	Cleaner, commercial
381.687	Cleaner, institutional
381.687	Laborer, museum
382.664	Janitor
382.664	Janitor, building
401.161	Farmer, grain
401.687	Farmworker, grain
406.683	Laborer, golf course
529.382	Operator, dairy processing equipment
529.385	Noodle maker (food proc)
559.567	Laborer, general
599.685	Painting machine operator
600.280	Maintenance machinist
600.380	Job setter, machine shop
601.280	Tool and die maker
601.281	Inspector, tool
606.662	Drill press operator
609.684	Laborer, machine shop
611.462	Forging press operator, leader
611.685	Forging press operator
611.685	Press operator (mfg)
620.261	Automobile mechanic
620.281	Front-end mechanic
620.684	Automobile-mechanic helper
625.281	Engine repairer, service
625.281	Small engine mechanic
638.281	Maintenance mechanic
650.582	Phototypesetter operator
651.482	Press operator (prtg)
705.684	Grinder
706.684	Assembler (mfg)
709.281	Locksmith
710.381	Gas-regulator repairer
721.281	Motor repairman
723.584	Appliance repairer
726.684	Electronics assembler
729.281	Electric-meter repairer
729.687	Assembler, electrical access
740.684	Painter, brush
741.687	Paint sprayer
749.684	Decal applier
749.687	Stripper, paint
785.261	Alteration tailor
787.682	Power sewing machine operator
804.281	Sheet metal worker
819.361	Welder-fitter
819.384	Welder, combination
819.687	Welder helper
824.261	Electrician
850.683	Bulldozer operator
860.137	Supervisor, carpenter
869.567	Surveyor helper
869.664	Construction worker I
869.664	Insulation installer
869.685	Kettle man (roofing)
891.137	Maintenance supervisor
899.684	Laborer, road (const)
905.663	Truck driver (bldg mat)
906.683	Truck driver (agric delivery)
913.367	Taxicab starter (dispatcher)
913.463	Taxi driver
919.687	Cleaner, automobile washer
920.587	Packager, hand (mfg)
920.687	Bagger, grocery
921.133	Supervisor, material handling
921.683	Industrial truck operator (forklift)
922.687	Laborer, stores
929.687	Material handler
929.687	Utility worker (const)
939.687	Company worker (mining)

950.131	Boilerhouse superintendent
953.362	Pressure controller (gas)
953.364	Gas-meter installer
953.367	House-piping inspector (gas)
959.167	Dispatcher, service
960.362	Projectionist
960.362	Visual aide
970.281	Sign writer, hand
973.381	Compositor (prtg, pub)
976.684	Film splicer
976.685	Film cutter and splicer

TABLE B-3

LIST OF JOB TITLES HELD BY PHYSICALLY HANDICAPPED ARRANGED BY TYPE AND SEVERITY OF IMPAIRMENT*

Hearing Impaired

101	Alteration tailor
101	Day care worker
402	Houseparent
	Sign writer, hand
102	Cleaner, automobile washer
401	
102	Automobile mechanic
402	Engine repairer, service
103	Compositor (prtg, pub)
	Compositor (prtg, pub)
	Credit manager
	Dishwasher
	Food order expediter
	Marker (ret)
	Project engineer
	Supervisor, electronic data processing
103	Projectionist
403	
103	Front-end mechanic
716	Painting machine operator
104	Company worker (mining)
	Forklift operator
	Laborer, museum
	Laborer, museum
	Price checker
	Supervisor, material handling
104	Surveyor helper
402	
104	Laborer, golf course
404	

Hearing Impaired (cont'd)

105	Assembler, electrical access
	Assembler, electrical access
	Claims clerk I (insur)
	Cleaner, commercial
	Cleaner, institutional
	Company worker (mining)
	Compositor (prtg, pub)
	Dining room attendant
	Encoder (fin)
	Laborer, museum
	Meter reader
	Painter, brush
	Phototypesetter operator
	Stock clerk, grocery goods
	Stock clerk, grocery goods
	Proofing-machine operator
105	Post-office clerk
403	Post-office clerk
105	Assembler (mfg)
405	Carpet cleaner
	Clerk-typist
	Dishwasher
	Drafter, commercial
	Electronics assembler
	Laborer, road (const)
	Mail clerk
	Medical technologist
	Noodle maker (food proc)
	Stripper, paint
	Supply service worker (med)
	Utility worker (const)
	Welder helper
105	Decal applier
405	Mail clerk
203	

*The 3-digit number is a code number for the type of impairment and its severity; see Exhibit B-1. If two or more numbers occur together, the employees holding those jobs had all the named impairments.

Visually Impaired

201 Nurse, Licensed Practical
Truck driver (agric delivery)

202 Accounting clerk
Bookkeeper II (educ)
Community organization worker
Farmworker, grain
Food order expediter
Gas-regulator repairer
Industrial truck operator
Payroll clerk, chief
Programmer
Taxicab starter (dispatcher)

202 Inspector, tool
502

202 Visual aide
502
708

202 Taxi driver
715

203 Operator, dairy processing equipment
Receiving clerk
Vice president (fin)
Welder-fitter

203 Community health worker
402
502
707

204 Packager, hand (mfg)
Teller (fin)

205 Film cutter and splicer
Film splicer
Insulation installer
Medical transcriber
Surveyor helper

Hearing and Visually Impaired

303 Sales clerk
Secretary

303 Painter, brush
403

Hearing and Visually Impaired (cont'd).

303 Postal distribution clerk
404
704

305 Janitor, building

Speech Impaired

402 Clerk-typist, head
Dietary aide
Electronics technician
Food order expediter
Janitor
Locksmith
Manager, fast food service
Medical records clerk
Press operator (mfg)
Supervisor, food-service

403 Clerk, mail room
Clerk-typist, medical
Cost clerk
Teller, head (fin)

404 Laborer, laundry
Truck driver (agric delivery)

405 Cleaner, automobile washer
101

Orthopedically Impaired

501 Accounting clerk
Contractor (const)
Electrician
Lab assistant, medical
Nurse, general duty
Secretary, personnel
Supervisor, food-service

502 Accounting clerk
Admissions evaluator
Bulldozer operator
Caseworker (social worker)
Clerk-typist
Computer operator
Cosmetologist
Drill press operator
Employment counselor

Orthopedically Impaired (cont'd)

502	Food order expediter
	Forging press operator, leader
	Forging press operator
	Front-end mechanic
	Manager, bulk plant
	Manager, retail store
	Material handler
	Motor repairman
	Nurse, general duty
	Nurse, head
	Nurse, office
	Order clerk (agric)
	Order clerk
	Parts-order-and-stock clerk (auto)
	Programmer
	Sales clerk
	Secretary
	Shipping clerk
	Surgery clerk
	Taxi driver
	Tool and die maker
	Truck driver (bldg mat)
	Veteran's job developer
	Welder, combination
	Welder-fitter
502 102	Cleaner, commercial
502 103 402 708	Dishwasher
502	Carhop
704	Dining room attendant
502 707	Manager, sales
503	Accounting manager, office
	Automobile-mechanic helper
	Boilerhouse superintendent
	Cleaner, institutional
	Clerk, administrative
	Electronics technician
	Laborer, stores
	Maintenance supervisor
	Medical transcriber
	Respiratory therapist, supervisor
	Security officer
	Small engine mechanic
	Supervisor, carpenter

Orthopedically Impaired (cont'd)

503 203	Clerk, general
504	PBX operator
505	Clerk, general (educ)
	Clerk, general (med)
	Nurse, Licensed Practical
	PBX operator
	Paint sprayer

Neuromuscularly or Neurologically Impaired by Type (Not Severity)

602	Bagger, grocery
	Child-care attendant
	Dishwasher
	Eligibility worker III
	Operations officer (fin)
	Stock clerk, grocery goods
	Stocker
603	File clerk I
	Grinder
	Keypunch operator
604	Cleaner, hospital
	Clerk-typist
	Food order expediter
	Keypunch operator
	Laborer, general
	Laborer, stores
	Nursing assistant, operating room
	Playroom attendant
	Press operator (prtg)
	Stock supervisor (ret)
	Supervisor, carpenter
605	Accounting clerk
606	Marketing research analyst
607	Dispatcher, radio (police)
	Eligibility worker III
	Farmer, grain
	Job setter, machine shop
	Sales representative (bldrs sup)
	Telephone solicitor
607 703	Manager, retail store

Neuromuscularly or Neurologically Impaired by Type (Not Severity) (cont'd)

608 Accounting clerk
Accounting clerk, data processing
Assistant vice president (fin)
Billing clerk
Check-processing clerk I (fin)
Dispatcher
Eligibility worker III
Kettle man (roofing)
Medical records technician
Sales representative (adver)
Secretary, medical
Switchboard operator
Telephone solicitor

608 Taxi driver
202
402

608 Power sewing machine operator
703

610 Manager, advertising

611 Superintendent, plant protection

613 Dispatcher, radio (police)
Order clerk

613 Taxi driver
202

613 Contractor (const)
703
708

614 Appliance repairer
Appliance repairer
Industrial truck operator
Photographer
Programmer
Programmer

Other Health Impaired by Type (Not Severity)

701 Construction worker I
Cooler worker (dairy prod)
Dispatcher, service
Electric-meter repairer
Eligibility worker III

Other Health Impaired by Type (Not Severity) (cont'd)

701 Industrial truck operator
Laborer, machine shop
Laborer, stores
Maintenance mechanic
Meter reader
Parts-order-and-stock clerk (auto)
Sales assistant
Secretary
Sheet metal worker
Sheet metal worker
Sheet metal worker
Stock clerk

701 Stock clerk, grocery goods
201

701 Electric-meter repairer
708

702 Food order expediter
Receptionist

703 Cashier-checker (sales)
Food order expediter
Library clerk III
Manager, fast food
(area supervisor)
Nurse, head
Safe deposit box rental clerk
Salesperson, automobile
Service representative (tel/teleg)
Supervisor, laundry

704 Clerk-typist, medical
Housekeeper, medical services
Lab technician, medical
Radiologic technician

704 Customer service clerk
501

705 Food order expediter
Front-end mechanic
Manager, fast food service
Pressure controller (gas)

707 Clerk-typist
Drafter, assistant (elec)
Janitor
Maintenance supervisor
Manager, advertising
Nurse, head

Other Health Impaired by Type (Not Severity) (cont'd)

707	Nurse's aide
	Nurse's aide
	Programmer
	Supervisor, food-service
707 202	Taxi driver
707 716	Taxi driver
708	Buyer (mfg)
	Cleaner, hospital
	Inventory clerk
	Maintenance machinist
	PBX operator
	Shipping clerk
	Shipping clerk
	Supervisor, food-service
708 302	Taxi driver
711	Psychiatric aide
713	Food order expediter
714	Outpatient-admitting clerk
716	Dining room attendant
	Drafter, chief, design (light, heat and power)
	Food order expediter
	Gas-meter installer
	House-piping inspector (gas)
	Meter reader
	Sales representative (gen mdse)
	Veteran's job developer
	Veteran's job developer

TABLE B-4

LIST OF JOB TITLES HELD BY PHYSICALLY HANDICAPPED EMPLOYEES ARRANGED BY VOCATIONAL PROGRAM AREA

This table consists of a series of sub-listings--that is, a list of job titles by the vocational program area that prepares workers for that specific job title.

In a few instances, the job title may be found on more than one program area list. Generally speaking, such job titles represent a "common" type of job but the technical content required on the job is specifically related to that program area.

NOTE. These job titles do not represent all the jobs for which physically handicapped individuals may be employed; this lists are not intended to restrict vocational program enrollment nor employment opportunities. Rather, these listings show the multitude and variety of jobs that the physically handicapped do perform; they also can be analyzed for areas in which training/employment gaps may exist.

AGRIBUSINESS

USOE Code: 01

Codes[a] for Reimbursed Secondary Programs

CLASS	CODE
Agribusiness I	5901
Agribusiness II	5902
Agricultural Production	5903
Agricultural Products (Processing)	5904
Horticulture	5906
Agricultural Supplies/Services	5907
Agricultural Mechanics	5908
Forestry	5909
Diversified Agricultural Occupations (DAO)	5910
Agricultural Resources	5911

Codes for Postsecondary and Adult Programs

CLASS	CODE
Agricultural Production	0100
Agricultural Supplies/Services	0200
Agricultural Mechanics	0300
Agrucultural Products (Processing)	0400
Horticulture, Ornamental	0500
Agricultural Resources (Conservation-Recreation)	0600
Forestry	0700
Other	0900

Alphabetic List of Job Titles Held by Physically Handicapped Employees And/Or Graduate/Completers

Job Title[b]	*Impairment(s)*	*USOE-Coded Program*[c]
xEngine repairer, service	102, 402	IE
Farmer, grain	607	
Laborer, golf course	104, 404	
Laborer, machine shop	701	
Operator, dairy processing equipment	203	
xOrder clerk (agric)	502	DE (BO)
Paint sprayer	505	
Surveyor helper	205	
Surveyor helper	104, 402	
xWelder-fitter	502	IE

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[a] These code numbers (such as 01.5901 or 01.0600) are used in reporting enrollments to state and federal governments.

[b] Even though some job titles may require college training, they remain in this list as reported.

[c] This column contains the name of the program area specified in VOCATIONAL EDUCATION AND OCCUPATIONS, Bulletine OE-80061, 1969.

[z] The job title was first listed by the USOE codes in c and then cross listed in this program area. Such overlappings or cross listings result from job titles that reflect (a) the type of company in which employed ("customer service clerk" is listed as B&O in an office setting but as DE if in a retail store); (b) some necessary duplication of instruction ("small engine repair" in AG and IE); (c) identification by a combination of clerical/service functions with technical knowledge demanded by employment in a specific SIC company—i.e. "parts-order-and-stock clerk" as B&O in a manufacturing company, as AG in a farm implement company, or as DE in an automotive repair company; and (d) partial functions and/or type of company ("stock clerk" is coded by B&O but is included in DE when located in a retail store).

BUSINESS AND OFFICE EDUCATION USOE Code: 14

Codes[a] for All Programs

CLASS	CODE
Accounting Jr. Management	0100
Data Processing	0200
Clerical	0300
Secretarial	0700
Other	0900

Alphabetic List of Job Titles Held by Physically Handicapped Employees And/Or Graduate/Completers

Job Title[b]	*Impairment(s)*	*USOE-Coded Program*[c]
Accounting clerk	202	
Accounting clerk	501	
Accounting clerk	502	
Accounting clerk	605	
Accounting clerk	608	
Accounting clerk, data processing	608	
Accounting manager, office	503	
Admissions evaluator	502	
Billing clerk	608	
Bookkeeper II (educ)	202	
Check-processing clerk I (fin)	608	
Claims clerk I (insur)	105	
Clerk-typist	502	
Clerk-typist	105, 405	
Clerk-typist	707	
Clerk-typist	604	
Clerk-typist, head	402	
Clerk-typist, medical	704	
Clerk-typist, medical	403	
Clerk, administrative	503	
Clerk, general	503, 203	
Clerk, general (educ)	505	
Clerk, general (med)	505	
Clerk, mail room	403	
Computer operator	502	
Cost clerk	403	

Business and Office Education (cont.)

Job Title	*Impairment(s)*	*USOE-Coded Program*
Credit manager	103	
xCustomer service clerk	704, 501	DE
Eligibility worker III	608	
Eligibility worker III	607	
Eligibility worker III	602	
Eligibility worker III	701	
Encoder (fin)	105	
File clerk I	603	
Inventory clerk	708	
Keypunch operator	604	
Keypunch operator	603	
Library clerk III	703	
Mail clerk	105, 405	
Mail clerk	105, 405, 203	
Medical records clerk	402	
Medical transcriber	503	
Medical transcriber	205	
xOrder clerk (agric)	502	DE (AG)
Outpatient-admitting clerk	714	
PBX operator	708	
PBX operator	505	
PBX operator	504	
Payroll clerk, chief	202	
Post office clerk	105, 403	
Post office clerk	105, 403	
Postal distribution clerk	303, 404, 704	
Programmer	707	
Programmer	202	
Programmer	502	
Programmer	614	
Programmer	614	
Receiving clerk	203	
Receptionist	702	
Safe deposit box rental clerk (fin)	703	
Secretary	303	
Secretary	502	
Secretary	701	
Secretary, medical	608	
Secretary, personnel	501	
Service representative (tel/teleg)	703	
Shipping clerk	708	
Shipping clerk	708	
Shipping clerk	502	
Stock clerk	701	
Switchboard operator	608	
Teller (fin)	204	
Teller, head (fin)	403	

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[a] These code numbers (such as 01.5901 or 01.0600) are used in reporting enrollments to state and federal governments.

[b] Even though some job titles may require college training, they remain in this list as reported.

[c] This column contains the name of the program area specified in VOCATIONAL EDUCATION AND OCCUPATIONS, Bulletine OE-80061, 1969.

[x] The job title was first listed by the USOE codes in c and then cross listed in this program area. Such overlappings or cross listings result from job titles that reflect (a) the type of company in which employed ("customer service clerk" is listed as B&O in an office setting but as DE if in a retail store); (b) some necessary duplication of instruction ("small engine repair" in AG and IE); (c) identification by a combination of clerical/service functions with technical knowledge demanded by employment in a specific SIC company—i.e. "parts-order-and-stock clerk" as B&O in a manufacturing company, as AG in a farm implement company, or as DE in an automotive repair company; and (d) partial functions and/or type of company ("stock clerk" is coded by B&O but is included in DE when located in a retail store).

MARKETING AND DISTRIBUTIVE EDUCATION USOE Code: 04

Codes[a] for All Programs

CLASS	CODE
D.E.I - Economics of Distribution	5750
D.E.III - Merchandising	5751
D.E.IIIb - Marketing and Simulated Work Experience	5753
D.E.IIIa - Marketing and Cooperative Work Experience	5754

(USE ONLY IF DOT CODES NOT AVAILABLE)
VOC. CURRICULUM FOR D.E. (Item 34)

Advertising Services	0100
Apparel and Accessories	0200
Automotive	0300
Finance and Credit	0400
Floristry	0500
Food Distribution	0600
Food Services	0700
General Merchandise	0800
Hardware, Building Materials, Farm/Garden Supplies and Equipment	0900
Home Furnishings	1000
Hotel and Lodging	1100
Industrial Marketing	1200
Insurance	1300
International Trade	1400
Personal Services	1500
Petroleum	1600
Real Estate	1700
Recreation and Tourism	1800
Transportation	1900
Retailing (General/Misc.)	2000
Wholesaling (General/Misc.)	3100
Other	9950

Alphabetic List of Job Titles Held by Physically Handicapped Employees And/Or Graduate/Completers

Job Title[b]	*Impairment(s)*	*USOE-Coded Program*[c]
Bagger, grocery	602	
Buyer (mfg)	708	
xCarhop	502, 704	HE
Cashier-checker (sales)	703	
xCheck-processing clerk I (fin)	608	BO
xClaims clerk I (insur)	105	BO
Cooler worker (dairy prod)	701	
xCost clerk	403	BO
xCredit manager	103	BO
Customer service clerk	704, 501	

Marketing and Distributive Education (cont.)

Job Title	*Impairment(s)*	*USOE-Coded Program*
Dispatcher	608	
Dispatcher, service	701	
xFood order expediter	103	HE
xFood order expediter	202	HE
xFood order expediter	402	HE
xFood order expediter	502	HE
xFood order expediter	604	HE
xFood order expediter	702	HE
XFood order expediter	703	HE
xFood order expediter	705	HE
xFood order expediter	713	HE
xFood order expediter	716	HE
Laborer, stores	503	
Laborer, stores	701	
Laborer, stores	604	
Manager, advertising	610	
Manager, advertising	707	
Manager, bulk plant	502	
xManager, fast food (area supervisor)	703	HE
xManager, fast food service	705	HE
xManager, fast food service	402	HE
Manager, retail store	502	
Manager, retail store	607, 703	
Manager, sales	502, 707	
Marker (ret)	103	
Marketing research analyst	606	
Order clerk	502	
Order clerk	613	
Order clerk (agric)	502	
Packager	204	
Parts-order-and-stock clerk (auto)	502	
Parts-order-and-stock clerk (auto)	701	
Price checker	104	
xReceiving clerk	203	BO
Sales assistant	701	
Sales clerk	502	
Sales clerk	303	
Sales representative (adver)	608	
Sales representative (bldr sup)	607	
Sales representative (gen mdse)	716	
Salesperson, automobile	703	
xShipping clerk	708	BO
xShipping clerk	708	BO
xShipping clerk	502	BO

Marketing and Distributive Education (cont.)

Job Title	*Impairment(s)*	*USOE-Coded Program*
Stock clerk, grocery goods	105	
Stock clerk, grocery goods	105	
Stock clerk, grocery goods	701, 201	
Stock clerk, grocery goods	602	
Stock supervisor (ret)	604	
Stocker	602	
xSupervisor, food-service	501	HE
xSupervisor, food-service	402	HE
xSupervisor, food-service	708	HE
xSupervisor, food-service	707	HE
xSupervisor, laundry	703	
xSupervisor, material handling	104	
Taxicab starter (dispatcher)	202	
Telephone solicitor	607	
Telephone solicitor	608	
Truck driver (agric del)	201	
Truck driver (agric del)	404	
Truck driver (bldg mat)	502	

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[a] These code numbers (such as 01.5901 or 01.0600) are used in reporting enrollments to state and federal governments.

[b] Even though some job titles may require college training, they remain in this list as reported.

[c] This column contains the name of the program area specified in VOCATIONAL EDUCATION AND OCCUPATIONS, Bulletine OE-80061, 1969.

[x] The job title was first listed by the USOE codes in c and then cross listed in this program area. Such overlappings or cross listings result from job titles that reflect (a) the type of company in which employed ("customer service clerk" is listed as B&O in an office setting but as DE if in a retail store); (b) some necessary duplication of instruction ("small engine repair" in AG and IE); (c) identification by a combination of clerical/service functions with technical knowledge demanded by employment in a specific SIC company—i.e. "parts-order-and-stock clerk" as B&O in a manufacturing company, as AG in a farm implement company, or as DE in an automotive repair company; and (d) partial functions and/or type of company ("stock clerk" is coded by B&O but is included in DE when located in a retail store).

HEALTH AND PERSONAL SERVICE

USOE Code: 07

Codes[a] for Reimbursed Secondary Programs

CLASS	CODE
Health Careers	5201
Licensed Proactical Nurse	5205
Cosmetology	5206

Codes[a] for Postsecondary and Adult Programs

CLASS	CODE
Dental Assistant	0101
Dental Lab. Assistant	0103
Certified Lab. Assistant	0203
Registered Nurse, Associate Degree	0301
Licensed Practical Nurse	0302
Nurse Assistant	0303
Surgical Technician	0305
Radiology Technician	0501
Respiratory Therapy	0903
Medical Assistant	0904
Barbering	2601
Cosmetology	2602
Medical Secretary	9880
Other	9900
Health Careers	9901
Pre-Health	9903
Related Health	9904
Medical Records	9905
Ward Clerk	9906
Emergency Medical Techn.	9907

Alphabetic List of Job Titles Held by Physically Handicapped Employees And/Or Graduate/Completers

Job Title[b]	*Impairment(s)*	*USOE-Coded Program*[c]
Cosmetology	502	
Lab assistant, medical	501	
Medical records technician	608	
Medical technologist	105, 405	
xMedical transcriber	503	80
xMedical transcriber	205	80
Nurse, licensed practical	505	
Nurse, licensed practical	201	
Nurse's aide	707	
Nurse's aide	707	
Nursing assistant, operating room	604	
Psychiatric aide	711	
Radiologic technician	704	
Respiratory therapist, supervisor	503	
xSecretary, medical	608	80
Surgery clerk	502	

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[a] These code numbers (such as 01.5901 or 01.0600) are used in reporting enrollments to state and federal governments.

[b] Even though some job titles may require college training, they remain in this list as reported.

[c] This column contains the name of the program area specified in VOCATIONAL EDUCATION AND OCCUPATIONS, Bulletine OE-80061, 1969.

[x] The job title was first listed by the USOE codes in c and then cross listed in this program area. Such overlappings or cross listings result from job titles that reflect (a) the type of company in which employed ("customer service clerk" is listed as B&O in an office setting but as DE if in a retail store); (b) some necessary duplication of instruction ("small engine repair" in AG and IE); (c) identification by a combination of clerical/service functions with technical knowledge demanded by employment in a specific SIC company—i.e. "parts-order-and-stock clerk" as B&O in a manufacturing company, as AG in a farm implement company, or as DE in an automotive repair company; and (d) partial functions and/or type of company ("stock clerk" is coded by B&O but is included in DE when located in a retail store).

HOME ECONOMICS

USOE Code: 09

Codes[a] for Reimbursed Secondary Programs

CLASS	CODE
Child Development	5920
Comprehensive Home Economics I	5921
Comprehensive Home Economics II	5922
Family Living	5925
Consumer Education	5926
Adult Living	5927
H.E. For Career or College Bound Seniors	5928
Parenthood Education	5929
Clothing & Textiles	5931
Management/Consumer Ed.	5932
Personal & Family Development	5933
Food & Nutrition	5934
Housing	5935
WAGE EARNING PROGRAMS	
Commercial Foods I	5923
Commercial Foods II	5924
Child Care Services	5936
Clothing Services	5937
Home Furnishings	5938
Home/Community Services	5939

Codes[a] for Postsecondary and Adult Programs

CLASS	CODE
Adult Homemaking Drop-In Center	0101
Consumer and Family Life Skills (Postsecondary only)	0199
SPECIAL INTEREST COURSES	
Child Development	0102
Clothing Management	0103
Consumer Education	0104
Personal & Family Development	0106
Food Management	0107
Home Management	0108
Housing	0109
Other	0900
WAGE EARNING PROGRAMS	
Child Care Services	0201
Clothing Services	0202
Food Services (Mgt., Production & Services)	0203
Home Furnishings, Equipment and Services	0204
Home-Community Services	0205

Alphabetic List of Job Titles Held by Physically Handicapped Employees And/Or Graduate/Completers

Job Title[b]	*Impairment(s)*	*USOE-Coded Program*[c]
xAlteration tailor	101	IE
Carhop	502, 704	
Child care attendant	602	
Cleaner, commercial	105	
Cleaner, commercial	502, 102	
Cleaner, hospital	604	
Cleaner, hospital	708	
Cleaner, institutional	105	
Cleaner, institutional	503	
Day care worker	101, 402	
Dietary aide	402	
Dining room attendant	502, 704	
Dining room attendant	105	
Dining room attendant	716	
Dishwasher	602	
Dishwasher	105, 405	
Dishwasher	103	
Dishwasher	502, 103, 402, 708	

Home Economics (cont.)

Job Title[b]	*Impairment(s)*	*USOE-Coded Program*[c]
Food order expediter	103	
Food order expediter	202	
Food order expediter	402	
Food order expediter	502	
Food order expediter	604	
Food order expediter	702	
Food order expediter	703	
Food order expediter	705	
Food order expediter	713	
Food order expediter	716	
Housekeeper, medical services	704	
Houseparent	101, 402	
Manager, fast food service	705	
Manager, fast food service	703	
Manager, fast food service	402	
Playroom attendant	604	
Power sewing machine operator	608, 703	
Supervisor, food-service	501	
Supervisor, food-service	402	
Supervisor, food-service	708	
Supervisor, food-service	707	

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[a] These code numbers (such as 01.5901 or 01.0600) are used in reporting enrollments to state and federal governments.

[b] Even though some job titles may require college training, they remain in this list as reported.

[c] This column contains the name of the program area specified in VOCATIONAL EDUCATION AND OCCUPATIONS, Bulletine OE-80061, 1969.

[x] The job title was first listed by the USOE codes in c and than cross listed in this program area. Such overlappings or cross listings result from job titles that reflect (a) the type of company in which employed ("customer service clerk" is listed as B&O in an office setting but as DE if in a retail store); (b) some necessary duplication of instruction ("small engine repair" in AG and IE); (c) identification by a combination of clerical/service functions with technical knowledge demanded by employment in a specific SIC company—i.e. "parts-order-and-stock clerk" as B&O in a manufacturing company, as AC in a farm implement company, or as DE in an automotive repair company; and (d) partial functions and/or type of company ("stock clerk" is coded by B&O but is included in DE when located in a retail store).

INDUSTRIAL EDUCATION

USOE Code: 17

Codes[a] for Reimbursed Secondary Programs

CLASS	CODE
Air Conditioning & Heating	5760
Appliance Repair	5761
Auto Body Repair	5762
Auto Mechanics	5763
Building Maintenance	5764
Cabinetmaking	5765
Carpentry	5766
Commercial Art	5767
Diesel Mechanics	5768
Drafting	5769
Dry Cleaning	5770
Electronics	5771
Graphic Arts	5772
Industrial Electricity	5773
Industrial Sewing	5774
Interior Finishing	5775
Machine Shop	5776
Masonry	5777
Mine Equipment Maintenance	5778
Office Machine Repair	5779
Plumbing	5780
Radio & TV Repair	5781
Service Station Attendant	5782
Sheet Metal	5783
Small Engine Repair	5784
Tailoring	5785
Truck Mechanics	5786
Upholstery	5787
Welding	5788
Plant Maintenance	5789
Mining Careers	5790

INDUSTRIAL EDUCATION LEVEL II PROGRAM AREA CODE - 94

Industral Materials/Processes	5941
General Drafting	5942
General Electricity/ Electronics	5943
General Power Mechanics	5944
General Graphic Arts	5945
General Woods	5946
General Metals	5948
General Crafts	5949

Codes[a] for Postsecondary and Adult Programs

CLASS	CODE
Chemical Technology*	0105
Highway Technology*	0106
Electrical Engineering Tech.*	0107
Electronics Technology	0108
Instrumentations*	0112
Technical Drafting*	0113
Air Conditioning	0100
Appliance Repair	0200
Auto Body & Fender Repair	0301
Auto Mechnaics	0302
Specialization (Auto Parts)	0303
Service Station Attendant	0399
Aircraft Maintenance	0401
Office Machine Repair	0600
Commercial Art	0700
Commercial Photography	0900
Construction & Maintenance	1000
Carpentry	1001
Electricity	1002
Heavy Equipment (Road)	1003
Masonry	1004
Painting & Decorating	1005
Plumbing and Pipefitting	1007
Mine Maintenance	1093
Construction & Maintenance, Other	1099
Custodial Training	1100
Diesel Mechanics	1200
Drafting	1300
Industrial Electricity	1401
Communications	1501
Industrial Electronics	1502
Radio and TV Repair	1503
Dry Cleaning	1601
Graphic Arts, Printing	1900
Machine Shop-Machinest	2302
Machine Tool Operations	2303
Sheet Metal	2305
Welding	2306
Tool & Die Making	2307
Meatcutting	2903
Refrigeration	3000
Small Engine Repair	3100
Textile Prod. & Fabrication	3300
Tailoring	3302
Upholstering	3500
Woodworking Occupations	3600
Cabinetmaking & Millwork	3601
Other	9900
Mining Careers	9902
Mining Engineering Tech.	9903
Mining Trainer	9904
Mining Safety Training	9905
Mining Electricity	9906
Related T & I	9908
Mining Machine Operator	9910
Industrial Machine Maintenance	9913

*Formerly Technical Education

Alphabetic List of Job Titles Held by Physically Handicapped Employees And/Or Graduate/Completers

Job Title[b]	Impairment(s)	USOE-Coded Program[a]
Alteration tailor	101	
Appliance repairer	614	
Appliance repairer	614	
Automobile mechanic	102, 402	
Automobile mechanic	102, 402	
Automobile-mechanic helper	503	
Bulldozer operator	502	
Carpenter, supervisor	503	
Compositor (prtg, pub)	103	
Compositor (prtg, pub)	103	
Compositor (prtg, pub)	105	
xCosmetologist	502	HPS
Drafter, assistant (elec)	707	
Drafter, chief design (light, heat and power)	716	
Drafter, commercial	105, 405	
Electronics technician	503	
Electronics technician	402	
Engine repairer, service	102, 402	
Front-end mechanic	705	
Front-end mechanic	103, 716	
Front-end mechanic	105	
Janitor	402	
Maintenance machinist	708	
Maintenance mechanic	701	
Motor repairman	502	
Phototypesetter operator	105	
xPower sewing machine operator	608, 703	HE
Press operator (prtg)	604	
Proofing-machine operator	105	
Sheet metal worker	701	
Sheet metal worker	701	
Sheet metal worker	701	
Sign writer, hand	101, 402	
Small engine mechanic	503	
Tool and die maker	502	
Utility worker (const)	105, 405	
Welder, combination	502	
Welder-fitter	203	
Welder-fitter	502	
Welder helper	105, 405	

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[a] These code numbers (such as 01.5901 or 01.0600) are used in reporting enrollments to state and federal governments.

[b] Even though some job titles may require college training, they remain in this list as reported.

[c] This column contains the name of the program area specified in VOCATIONAL EDUCATION AND OCCUPATIONS, Bulletine OE-80061, 1969.

[x] The job title was first listed by the USOE codes in c and then cross listed in this program area. Such overlappings or cross listings result from job titles that reflect (a) the type of company in which employed ("customer service clerk" is listed as B&O in an office setting but as DE if in a retail store); (b) some necessary duplication of instruction ("small engine repair" in AG and IE); (c) identification by a combination of clerical/service functions with technical knowledge demanded by employment in a specific SIC company—i.e. "parts-order-and-stock clerk" as B&O in a manufacturing company, as AG in a farm implement company, or as DE in an automotive repair company; and (d) partial functions and/or type of company ("stock clerk" is coded by B&O but is included in DE when located in a retail store).

Codes[a] for Postsecondary and Adult Programs

Codes[a] for Postsecondary and Adult Programs

CLASS	CODE
Public Service Occupations	2800
Fire Service	2810
Firefighter	2811
Fire Specialist	2812
Fire Officer	2813
Fire Seminar	2814
Regional Fire School	2815
Industrial Fire Brigade	2816
Institutional Fire Brigade	2816
Public Fire Safety Education	2818
Criminal Justice	2820
Careers in Criminal Justice	2821
Law Enforcement	2822
Corrections	2323
Business and Industrial Security	2826
Rescue Service	2830
General Rescue	2831
Vehicle Rescue	2832
Emergency Medical Care	2840
Standard First Aid	2841
Malti-Media First Aid	2842
Advanced First Aid	2843
CardioPulmonary Resuscitation	2844
Electrical Safety	2850
Water Treatment	2860
Government Employees	2870
Other	9900

No job titles were found to be held by physically handicapped employees and/or graduate/completers.

No job titles were found at the secondary level.

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[a] These code numbers (such as 01.5901 or 01.0600) are used in reporting enrollments to state and federal governments.

Job Titles Unclaimed by Vocational Program Areas

Job Title	*Impairment(s)*
Assembler (mfg)	105, 405
Assembler, electrical access	105
Assembler, electrical access	105
Assistant vice president (fin)	608
Boilerhouse superintendent	503
Carpet cleaner	105, 405
Caseworker (social worker)	502
Cleaner, automobile washer	102, 401
Cleaner, automobile washer	405, 101
Cleaner, commercial	105
Cleaner, commercial	502, 102
Community health worker	203, 402, 502, 707
Community organization worker	202
Company worker (mining)	105
Construction worker I	701
Contractor	613, 703, 708
Contractor	501
Decal applier	105, 405, 203
Dispatcher, radio (police)	613
Dispatcher, radio (police)	607
Drill press operator	502
Electric-meter repairer	701
Electric-meter repairer	701, 708
Electronics assembler	105, 405
Farmworker, grain	202
Film cutter and splicer	205
Film splicer	205
Forging press operator	502
Forging press operator, leader	502
Forklift operator	104
Gas-meter installer	716
Gas-regulator repairer	202
Grinder	603
House-piping inspector (gas)	716
Industrial truck operator	202
Industrial truck operator	614
Industrial truck operator	701
Inspector, tool	202, 502
Insulation installer	205
Janitor	707
Janitor, building	305
Job setter, machine shop	607
Kettle man	608
Lab technician, medical	704
Laborer, general	604
Laborer, laundry	404
Laborer, museum	105
Laborer, museum	105
Laborer, road	105, 405

Unclaimed Jobs (cont.)

Job Title	*Impairment(s)*
Locksmith	402
Maintenance supervisor	707
Maintenance supervisor	503
Material handler	502
Meter reader	716
Meter reader	701
Meter reader	105
Noodle maker (food proc)	105, 405
Nurse, general duty	501
Nurse, general duty	502
Nurse, head	703
Nurse, head	707
Nurse, head	502
Nurse, office	502
Operations officer (fin)	602
Packager, hand (mfg)	204
Painter, brush	105
Painter, brush	303, 403
Painting machine operator	103, 716
Photographer	614
Press operator (mfg)	402
Pressure controller (gas)	705
Project engineer	103
Projectionist	103, 403
Security officer	503
Stripper, paint	105, 405
Superintendent, plant protection	611
Supervisor, carpenter	604
Supervisor, electronic data processing	103
Supply service worker (med)	105, 405
Taxi driver	202, 715
Taxi driver	502
Taxi driver	613, 202
Taxi driver	707, 202
Taxi driver	708, 302
Taxi driver	608, 202, 402
Taxi driver	707, 716
Veteran's job developer	502
Veteran's job developer	716
Veteran's job developer	716
Vice president (fin)	203
Visual aide	202, 502, 708

CHAPTER B-2

GUIDELINES AND TEACHING SUGGESTIONS

The mainstreaming of physically handicapped individuals into vocational programs is a relatively new challenge. Guidelines for planning programs, counseling, and teaching are in the developmental stage. Those provided here are by no means comprehensive and need to be continuously re-examined in the coming years.

Prejudice, lack of understanding, and lack of professional training often inhibit vocational educators from working effectively with the physically handicapped. Barriers exist for the physically handicapped person seeking vocational training--sometimes they are external (outside) barriers and sometimes they are internal. Regardless, the physically handicapped individual is still an individual with the same needs and desires as the nonhandicapped person.

Therefore, a cooperative approach to working with the physically handicapped group--and the individuals within that group--is necessary and rewarding. The guidelines provided here relate to the results of the surveys, experiences of the project staff, and readings of experts in this area.

Guidelines for Vocational Counseling

Vocational counseling for the physically handicapped may be provided by three different groups: special educators, guidance counselors, and vocational educators. Each group has its own level of responsibility, its own method of providing career information, and its own setting in which to provide this counseling.

The guidelines for providing vocational counseling--and the use of the data in this manual--include the following (although there are many other more comprehensive guidelines):

1. Vocational counseling should be a joint responsibility of the special educator , vocational counselor, and vocational educator.
2. The professional educators must work cooperatively with the physically handicapped person and with his/her parent(s) if the person is a minor.
3. Realistic career models should be provided:
    a. use the MASTER LISTS OF JOB TITLES as described in the procedures section which follows.
    b. obtain additional information from the appropriate association on the resource list.
4. Determine what the physically handicapped person can do and what can be developed rather than what cannot be done.
5. Arrange interviews with workers having similar impairments and similar occupational interests for the physically handicapped person if possible.
6. Introduce the physically handicapped student to the counseling counterparts to provide a breadth of experience for the student.
7. Arrange for physically handicapped workers to visit the school as guest speakers and to meet with individuals.

8. Maintain a supply of brochures, pamphlets, and other materials describing the physically handicapped in various occupational jobs.

9. Invite employers of physically handicapped persons as guest speakers or for individual conferences with handicapped students and their teachers.

10. Employ diagnostic tests and other assessment tools to determine the physically handicapped student's occupational potentials.

11. Provide support and encouragement for obtaining knowledge, skills, and attitudes about various occupations while exploring and choosing a career objective.

12. Cooperate in placing the physically handicapped graduate of a vocational program in an appropriate job after graduation or completion of a program.

13. Work with the vocational teacher and the special education teacher in developing an appropriate IEP (Individual Education Program)--see suggestions in other areas.

These guidelines are not necessarily comprehensive but they do imply cooperative effort from the special educator, the counselor, and the vocational educator. Each guideline should be accompanied by a series of procedures that relate to the use of the MASTER LISTS OF JOB TITLES.

The MASTER LIST OF JOB TITLES BY TYPE AND SEVERITY OF IMPAIRMENT (Table B-3) will probably be the most useful. The job titles are categorized by the type and severity of impairment. The counselor, knowing the student's physical handicap, may quickly refer to that same impairment/handicap in Table B-3 and read the job titles. These job titles are (or have been) held by physically handicapped employees. The job titles listed under that type of impairment are not the only ones that can be performed by a person with the same physical handicap--they show some of the occupational possibilities.

The counselor may also have use for the MASTER LIST OF JOB TITLES ARRANGED ALPHABETICALLY (Table B-1) if the physically handicapped student has a special interest in a particular job title--or cluster of job titles. If the latter, the counselor may want to refer to the MASTER LIST OF JOB TITLES ARRANGED BY DOT NUMBER as the job titles tend to cluster by the DOT numbers.

The counselor, special educator, and the vocational teacher may also want to refer to the teaching suggestions and share the ideas with others who do not have access to this report.

Guidelines for Vocational Planning

In view of legislative mandates that the physically handicapped be placed in the least restrictive environment possible and that they be mainstreamed in regular vocational programs with the nonhandicapped, vocational planners (whether administrators, supervisors, curriculum directors, or teachers) must meet the challenge of providing appropriate vocational training.

The term "appropriate" has many connotations, depending on the person using the term. At the current time there is no single acceptable definition of what is an appropriate job for a physically handicapped person. This project, because of its identification of jobs held by physically handicapped employees, found some handicapped persons performing jobs that educators did not think possible. Some educators and employers may not be aware of the variety of jobs that can be performed by the handicapped. Also, some physically handicapped employees are so motivated to perform they do so regardless of their handicap. An example might be the job title "film cutter" being performed by a totally blind employee.

Some guidelines for vocational program planners are suggested here; they are not intended to be comprehensive:

1. Plan programs in occupational clusters in which the physically handicapped have a "better than expected" opportunity for employment (services, manufacturing, and transportation categories in the Standard Industrial Classification system--see Summary Report as well as Part A).
2. Explore and plan vocational programs in occupational clusters for which the physically handicapped have "less than expected" opportunity for employment (construction and public administration categories in the Standard Industrial Classification system--see Summary Report in Section 1 as well as Part A).
3. Encourage and/or provide in-service training for vocational teachers in areas that will improve their efforts in working with the physically handicapped; i.e., needs of the physically handicapped, writing or using assessment data from IEP's, performing

job analysis and task analysis and then writing realistic performance objectives, methods of instructing those who have various types of physical handicaps, knowledge of teaching resources available for working with the physically handicapped, and so forth. A well-organized, comprehensive course is recommended over a piecemeal approach.

4. Inform vocational faculty about the resources available under the "excess cost"* legislative provisions, such as (with prior approval based on request filed with Bureau of Vocational Education):
    a) a special work station or individual resource center
    b) instructional supplies
    c) illustrative materials (copies, individualized packages, transparencies, etc.)
    d) filmstrips, cassette tapes
    e) supportive personnel such as tutors, teacher's aide, attendant to push wheelchair
    f) modification of equipment if required
    g) special items such as glasses (on occasion) or a large print typewriter to prepare learning materials for visually impaired, or hearing aids for the hearing impaired
5. Develop and offer vocational programs for only physically handicapped students when there are a sufficient number.
6. Work with the vocational faculty to facilitate modification of the curriculum when necessary for a specific

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*Excess cost" refers to the cost for the physically handicapped person that is over and above that provided for the nonhandicapped student enrolled in the same program.

student. Develop a school policy and guidelines based on realistic analysis of job requirements and the student's physical handicap. For example, a deaf person would not be employable as a telephone operator although a completely blind person may be more highly successful than the nonhandicapped person; the blind person needs only some equipment modification.

7. Develop an efficient recordkeeping system using the Kentucky Placement and Follow-Up System in order to obtain data about the physically handicapped to use for future program planning.
8. Develop cooperative arrangements with the special educators and counselors for a communication system that is beneficial for the physically handicapped.
9. Work with the vocational faculty in placing graduates of programs who are physically handicapped in appropriate jobs.

The MASTER LIST OF JOB TITLES HELD BY PHYSICALLY HANDICAPPED EMPLOYEES ARRANGED BY VOCATIONAL PROGRAM AREA (Table B-4) may be useful in program planning, in recruiting physically handicapped students, and in identifying career models. The other master lists may be useful in other ways to vocational program planners.

The vocational planners, administrators, and teachers should be familiar with the process of requesting "excess cost" monies. A sample copy appears in Appendix B-2; since these forms are updated occasionally, obtain one from your regional vocational office when you need to submit one.

Guidelines for Personnel Managers and Employers

Despite research that shows that physically handicapped people are good employees (Part A), the physically handicapped employee is a rarity in business and industry. Only 88 (11.6 percent) of the business and industry responses indicated that they had physically handicapped employees--only 239 of them. When the percentage of physically handicapped to nonhandicapped employees is computed over the 761 respondents, the employment rate is roughly 1.75 percent.

There are many reasons for the very low employment opportunities in contrast to the number of handicapped in the general population (one in every eleven, all ages); needless to say, there needs to be increased occupational opportunities available for the physically handicapped. And the physically handicapped must have an equal opportunity and equal access to vocational training in order to qualify for these job opportunities.

Some guidelines for personnel managers and employers include the following:

1. Current employees should be surveyed to determine their physical handicap; applicants with similar impairments should be considered for vacancies.
2. In addition, applicants with different impairments should be considered for any vacancy for which they possess the abilities and qualifications.
3. Modifications in starting time, work station arrangement, and job/task selection should be made when the physically handicapped applicant can perform the work.

4. Equipment adaptation and special tools made necessary by the applicant/employee's physical impairment should not prevent the person from being hired if that person can do the job.
5. Some job redesign may be necessary when employing a physically handicapped person.
6. Employers need to cooperate with the educational agencies in placing graduates/completers on jobs for which they are trained.
7. Employers need to determine the specific jobs for which a physically handicapped person cannot be hired; such analysis must identify truly essential barriers rather than mythical ones.
8. Supervisors should be trained in attitudes, procedures, and methods of working effectively with the new employee who is physically handicapped or with an employee who becomes disabled.

The MASTER LIST OF JOB TITLES HELD BY PHYSICALLY HANDICAPPED EMPLOYEES ARRANGED BY TYPE AND SEVERITY OF IMPAIRMENT (Table B-3) as well as the one arranged alphabetically by job title (Table B-1) and the one arranged in numerical order by DOT number (Table B-2) may be useful in employing the physically handicapped and/or in assessing potential jobs for them.

Teaching Suggestions

Vocational educators must be prepared to provide instruction to the physically handicapped in an effective and efficient manner. There are three stages: (1) development of the Individual Education Program (referred to as IEP); (2) methods of instruction in the classroom, both general and specific; and (3) evaluation process and procedures. These topics will be discussed briefly here.

Development of the IEP

The IEP is developed by a team or committee; the vocational teacher should be involved at four specific times:

(1) during the determination of the annual goals involving vocational education
(2) when the short-term objectives are selected and written
(3) when instructional strategies and techniques are identified, including need for special services, supplementary aids, and "excess cost" items
(4) when the evaluation (progress report) is made

Annual Goals. The annual goals (long-range vocational goals) for a physically handicapped individual involves that person and the IEP team in determining career objective(s) and then in selecting appropriate vocational courses. Counselors and the vocational teacher should work cooperatively with the student and the parents of a minor in making such decisions. Realistic career information about many occupations should be provided; the student may have acquired this in a career education program.

Career information materials should be available. The GUIDE FOR OCCUPATIONAL EXPLORATION (published by the U. S. Department of Labor, Employment and Training, 1979) organizes all the occupations into career areas, groups, and clusters. This GUIDE is written on a relatively easy reading level suitable for high school students and adults who are interested in learning the qualifications, satisfactions, and aptitudes needed for most entry-level occupations.

The DICTIONARY OF OCCUPATIONAL TITLES, Fourth Edition (published by the U. S. Department of Labor, Employment and Training, 1978) may also be used in identifying possible job titles; it provides descriptions of the tasks and duties for all jobs. This book, however, may be more useful to the vocational teacher and the physically handicapped student after a tentative career decision has been made. It will be very useful in writing short-term objectives for the IEP.

The "Total Service Plan" (part of the IEP form used by Fayette County Public Schools) illustration shows the types of information accumulated about each student; note particularly the section entitled "Prioritized Annual Goals" (Exhibit B-2).

Short-Term Objectives. The IEP form includes short-term objectives (Exhibit B-3 of the "Individual Implementation Plan used by the Fayette County Public Schools). Three major types of information must be developed: (a) the short-term objective itself--written in criterion-referenced or behavioral/performance objective style; (b) the instructional strategies, materials, supportive services, and special equipment needed; and (c) the evaluation record based on the stated criterion.

EXHIBIT B-2

INDIVIDUAL EDUCATION PROGRAM: TOTAL SERVICE PLAN
(I.E.P.) (T.S.P.)

SAMPLE

Child's Name ______________________ School ____________________ Date __________

Birthdate ____________________ Age ______________

Summary of Present Levels of Performance: (Psychological and Educational Evaluations)

I. Test: ______________________________________ Date __________

Strengths: Weaknesses:

II. Test: ______________________________________ Date __________

Strengths: Weaknesses:

III. Test: ______________________________________ Date __________

Strengths: Weaknesses:

IV. Test: ______________________________________ Date __________

Strengths: Weaknesses:

***See attached Sheet For Test Results

Prioritized Annual Goals:

1. ______________________________________
2. ______________________________________
3. ______________________________________
4. ______________________________________
5. ______________________________________

Regular Class Placement	Hours per day
1.	
2.	
3.	

Specific Special Services:

Date Start	Projected Review Date	Program	Related Services

Committee Members Present
1. ____________________ Principal
2. ____________________ Parent's Signature
3. ____________________ Regular Class Teacher
4. ____________________ Special Class Teacher
5. ____________________
6. ____________________

White copy to the Department of Special Pupil Services
Blue copy to the Special Education Teacher
Yellow copy to the Chairman of the School Based Admissions & Release Committee
Pink copy to the parent

INDIVIDUAL IMPLEMENTATION PLAN (I.I.P.)
Fayette County Public Schools

Date ____________________

CHILD'S NAME:	**SCHOOL:**	**PERSON'S RESPONSIBLE:**

INSTRUCTIONAL AREA: ______________________________

ANNUAL GOAL: ______________________________

Criterion Referrenced Short Term Objectives	Instructional Strategies and Materials	Date Start	EVALUATION							Review Date
			Mastery							
			Pre-Test				Post Test			
			Date	Raw Score or Count	% Crit.		Date	Raw Score or Count	% Crit.	

SAMPLE

ANNUAL REVIEW STATEMENT FILED ON FORM EC/EIP-14

White Copy:	Special Pupil Services
Blue Copy:	Parent
Yellow Copy:	Chairperson, School Based Admissions and Release Committee
Pink Copy:	Special Education Teacher

REVIEW RECOMMENDED AT EACH GRADING PERIOD

Admissions and Release Committee

1. ____________________, Principal
2. ____________________, Parent's Signature
3. ____________________, Regular Class Teacher
4. ____________________, Special Class Teacher
5. ____________________,

The *criterion-referenced short-term objectives* must include three types of information (these are often called behavioral or performance objectives): the type of behavior or performance to be done, the conditions under which it is to be done, and the criterion and/or standards used for evaluation. Remember that the amount of time (perhaps stated in hours of instruction or by deadline dates) is also reflected in the evaluation/review process.

The CBVE (Competency-Based Vocational Education) materials include criterion-referenced objectives based on job/task analyses; they may be obtained by contacting the state supervisor of the program area, Bureau of Vocational Education, Frankfort. If you wish to develop your own or if they are not available for the specific job title/career objective, refer to any good reference on writing behavioral/performance objectives (i.e., Robert F. Mager, PREPARING INSTRUCTIONAL OBJECTIVES, Second Edition, Fearon Publishers, Inc., Belmont, California, 1975).

Selection of short-term objectives is based on two factors: (a) the job/task analysis, and (b) the assessment data for the physically handicapped student. Exhibit B-4 diagrams the type of information involved and the process of making decisions. After the physically handicapped student identifies a tentative career objective and the annual goal is determined (i.e., career objective--secretary; annual goal--beginning shorthand and beginning typewriting classes), the short-term objectives combine the DICTIONAY OF OCCUPATIONAL TITLES' job description (a series of tasks and duties) and the course objectives, content, and grading standards.

EXHIBIT B-4

JOB/TASK ANALYSIS APPROACH TO DEVELOPMENT OF IEP FOR VOCATIONAL EDUCATION

Job Title and/or Course Title:					
Projected Job Tasks (from DOT or . . .)	Level of Importance				Prescribed Learning Activity or Materials (CBVE, text, and . .)
	Essential*	Important	Desirable	If time permits	

Each vocational education course should have a list of job tasks (topics) (including skills, knowledges, and attitudes) prepared in advance and available for all students. When a physically handicapped student is enrolled, a selection of these job tasks and objectives is easier and will be made according to what is offered to all students.

*"Essential" means that this task is absolutely required for employment at this job title; most tasks will probably be rated as "important" or lower. Also, serious consideration should be given to the possibility of job redesign (eliminating the job task) in the actual employment situation.

The job description itself is a series of tasks and duties; standards or criterion are based on a combination of community practices and the vocational teacher's grading standards.

Modifications of the curriculum (tasks) may be necessary depending on the physically handicapped student's impairment; consequently, the tasks listed on Exhibit B-4 should indicate whether essential, important, desirable, or only if time permits. If the task is deemed "essential," then the students must acquire competency in it. If necessary, adaptations of work space, equipment, and/or furniture must be made to aid the physically handicapped student overcome an impairment.

If the task is absolutely essential for job performance and if the impairment is such that the individual cannot develop competency or do the essential task, then--and only then--can the student be denied enrollment in the program. However, such decisions should be based on data that truly distinguishes between "essential" and "important."

Instructional Strategies and Techniques. The vocational teacher and the special education teacher should work together in determining effective general teaching methods; the vocational teacher should prepare to adapt and/or adjust specific teaching methods to the type of impairment of the individual student. Suggestions and guidelines for teaching methods are provided a little later.

Evaluation. Evaluation criterion and timetables should be built into the criterion-referenced short-term objectives. Changes and revisions can be made during periodic reviews throughout the training period.

General Guidelines. Vocational teachers should observe these guidelines when working with the physically handicapped student and the IEP:

(a) Encourage the physically handicapped student to explore career clusters while assessing interest, ability and capabilities, and motivation levels.

(b) Modify the curriculum as needed (and if appropriate) so that the physically handicapped student acquires as many occupational competencies as possible in order to succeed in finding employment.

(c) Observe the physically handicapped student for tasks and jobs that he/she can do rather than for what cannot be done.

(d) Be empathetic but not sympathetic; be reasonable and realistic but the emphasis should be placed on the student's capabilities--or potential capabilities.

Teaching Suggestions--General

Visit with the physically handicapped student prior to the time he/she comes to the class if at all possible. Treat the student in the same manner as the nonhandicapped students in terms of discipline, attitude, and performance. Modify the curriculum and adjust your teaching/instructional techniques to accommodate the student's impairment. Observe the student to determine needs and capabilities. When adjustments in procedures/operations are necessary, remember the principle underlying the technique/action, but work out a compromise with the student; i.e., typewriting speed is built on the principle of continuously using the same finger on a key; if a finger is missing, substitute another but insist that the student use the same finger each time the key is struck.

Let the physically handicapped student know in advance what is to be learned, how it is to be learned, and how well it must be learned via behavioral objectives. Adjust the time allotted and/or shorten routine assignments where possible and if deemed necessary because of the student's impairment.

Provide encouragement when due and give criticism when due; be empathetic but not sympathetic. Make the student part of the group in committee work, answering questions, entering discussions, assigning chores, and encouraging friendships as you do for all members of the class.

Suggestions and guidelines for the various types of impairments are provided here briefly. A general description of symptoms will be provided first, and then specific suggestions will be made. Remember, however, that each individual may have an impairment to a differing degree of severity than someone else. Therefore, the vocational teacher should select the teaching techniques that are appropriate. Also, it is not possible to suggest specific, detailed suggestions for each type of symptom/impairment.

If questions arise, the vocational teacher should consult with the special education department, the parent if the student is a minor, and/or others.

Teaching Suggestions--Visual Impairments

Students with visual impairments may have one or more of the following symptoms related to visual impairments:

--may see distance objects but not nearby ones
--may write quite small and be unable to locate details in a picture
--may have good vision one day but not the next
--may not be able to differentiate colors
--may have eyes sensitive to light (noticeable squinting) and efforts to shut out light
--may have involuntary rapid movement of eyes due to disease
--may lose place in work
--may see only fragments of words or phrases
--may not be able to distinguish light and dark
--may have problems with depth perception
--may have difficulty in writing--poor spacing, staying on the line
--may hold reading materials too close or too far away
--may have difficulty moving around the building if the impairment is severe

The vocational teacher should acquaint the student with a severe visual impairment with the room, the equipment, and the furniture. The handicapped student should be instructed to grasp the nearest moving person and move quickly during fire drills. When taking the class on a field trip, notify the company and make arrangements if possible for the visually handicapped student to view the items/activities closely and/or be permitted to touch the objects.

The extremely farsighted student (even when wearing corrective glasses) may need a bookstand so the textbook can be placed at a distance; in some cases, the instructions may best be placed on an overhead projector. This student may have difficulty doing close work so use of chalkboard, flip charts, and oral instructions are also recommended.

The extremely nearsighted person has little or no difficulty with close work but has difficulty seeing objects in the distance. The student needs to move closer to the chalkboard; the teacher may need to provide oral instructions, also.

Study materials may need to be enlarged--some publishers will give permission to use an enlarging copier when requested. Large-print textbooks are available from the American Printing House for the Blind, Inc. (see resource list).

Students with visual impairments may be slow at reading; the length of the assignment may be shortened in some cases, the materials may be recorded on tape for listening, or the teacher may share lecture notes that summarize the salient points.

A number of special devices or adaptive materials are available; only a few will be identified here:

> Nonoptical aids--bookstands, felt tip pens (black), acetate in yellow to lay over a printed page to darken print, large-type books, bold-line paper, page markers and reading windows, sun visors, braillewriter, raised line drawing board, abacus, templates and writing guides
>
> Auditory aids--cassette tape recorders, talking books, variable speed attachments to tape recorders, speech compressors, talking calculators
>
> Optacon--transforms print into letter configurations of vibrating reeds that are read tactually, and closed circuit television that electronically enlarges the print

Optical aids--glasses with special prescriptions, magnifiers, telescopic aids

The visually impaired student may also be helped by sitting in the front row; others may want to avoid windows because of the light glare. The vocational teacher may request that instructional materials such as tape recorders be purchased; these "extra costs" may be paid from vocational funds if prior approval is obtained.

Some tools have raised markings that the visually impaired student can feel. Totally blind individuals are employed in a central office of a large company as a telephone operator, using "talking" directories and recording phone calls with a braille-writer. Just recently a typewriter manufacturer announced a "talking" typewriter that mechanically "reads" the typewritten material aloud--a boon to the visually impaired.

These suggestions, aids, and guidelines are only a few of the many that may be useful in working with students who have lost a little, some, most, or even all of their ability to see. Contact different agencies and associations for additional and more detailed suggestions.

Teaching Suggestions--Hearing Impairments

Students with hearing impairments may have one or more of the following symptoms and/or problems:

--may have difficulty hearing directions
--may have difficulty participating in class discussions
--may lack self-esteem; may show frustrations
--may have difficulty hearing bells, fire drills, announcements
--may have distracting sounds amplified over hearing aid
--may have speech problems
--may appear to be inattentive and lost in daydreams

The vocational teacher may find it necessary at some time to recommend a hearing test as the student may be compensating for the hearing loss--or the loss may be a recent one.

Depending on the severity of the hearing loss, adaptations may include moving the student's seat to the front of the room, providing some of the instruction on tape recorders that can be amplified without disturbing others, and speaking directly to the student. Auditory and visual distractions should be removed or lessened if possible. If the student speechreads (reads lips), the teacher should stand about six feet in front of the student when speaking; speak naturally in a normal tone of voice and without exaggerating lip movements.

New vocabulary should be introduced both orally and in writing. The teacher should encourage the hearing impaired student to ask questions; the teacher should be willing to repeat and rephrase questions and comments when asked.

Use as many visual aids in the instructional process as possible. Using transparencies on an overhead projector is a good procedure; simply writing out directions is also good.

Teacher demonstrations are essential. If the student is totally deaf and being mainstreamed, an interpretor may be necessary on occasions ("excess cost" if prior approval is obtained).

Some types of equipment may need to be modified for safety reasons and/or to permit efficiency in using it. For example, a deaf person working in a warehouse that uses forklift trucks will not hear a horn; therefore, the forklift truck should be equipped with a bright light that can be flashed as a warning signal. In typewriting class a bright light is attached to the typewriter as a signal when the carriage is at the right margin.

In some situations the teacher may wear a cordless microphone that the student's hearing aid will pick up. Visual aids of all types, outlines of main points, and amplified recordings are all recommended.

It is important--and sometimes difficult--to encourage the hearing impaired student to participate in group discussions especially if the hearing loss is quite apparent. The other students need to develop an awareness of the problem as well as basic techniques in helping overcome it. Small group discussions should be used, with the group more or less facing the hearing impaired student. Specific questions should be directed to this student when the teacher is leading a discussion--in this case, call the student's name first to ensure his/her attention for the rest of the question.

Some curriculum modifications may be necessary at times for the hearing impaired student when hearing is essential for the task--such as answering the telephone in a business office. If the hearing loss is a total one, the telephoning unit may be dropped and another more appropriate unit of instruction be added for this student.

Equipment modifications--or the use of special equipment--may be necessary, particularly on the job. Another example from the business office would be the use of an amplifier from the telephone company attached to the phone used by the worker with some hearing loss.

Teaching Suggestions--Speech Impaired

Speech impairments may take several forms: inability or difficulty in producing speech sounds, language disorders and lack of development, articulation or voice disorders, and others. Stuttering may also be a problem. Most speech impairments require special teachers trained in these areas.

The vocational teacher in all likelihood will not find it necessary to refer a student with a suspected speech impairment to a specialist as speech impairments are usually detected early.

For those who have speech difficulties--especially stuttering. --the vocational teacher may need to be "acceptive" of the student and patient in conversing with him/her. Eye contact and encouragement are essential. In working with the stutterer the teacher must be patient, listen attentively, let the student finish what he has to say, and avoid any form of ridicule. The teacher should not avoid the problem--or talking with the student about it--as the problem cannot be avoided. The speech impaired student should be encouraged to work on improvement of speech patterns and communication skills.

Teaching Suggestions--Orthopedic Impairments

Students with orthopedic impairments may have one or more of the following symptoms or problems:

--may be self-conscious and embarrassed at times
--may have poor self-esteem
--may show frustration at times
--may have physical mobility problem
--may have impairments in other areas
--may wear prosthetics or orthotics (braces, artificial limbs, and other devices)

The vocational teacher may find it necessary to work out creative or different ways for the orthopedically impaired student to achieve competency in certain tasks. In other cases, the impairment does not hinder the student's ability to do the work or acquire the occupational skill. Frustration may cause more problems for the student than for the teacher.

Occasionally special tools or equipment may be necessary so the orthopedically impaired student does not lose balance or become overly fatigued. Vises and clamps may be necessary to hold work and/or materials in place while the student works on them. Some of the same devices and aids described in the neuromuscular/neurological teaching suggestions may be useful for this group also.

Teaching Suggestions--Neuromuscular/Neurological Impairments

Individual differences are great within this group and therefore each student should be considered as an individual. Only suggestions for cerebral-palsied individuals will be made here. As a group, they are very responsive to others and tend to be self-conscious, excitable, and easily distracted; they may also lack motivation.

The cerebral-palsied individual may have weak wrists and a handrest is useful when typing; two types may be used: (1) at the bottom of the keyboard as a rest for hands and arms, or (2) over the top of the typewriter so the student can rest the hands and type from above.

This student may also have difficulty inserting paper into the typewriter; a guide that extends above the typewriter table may serve as a funnel for inserting the paper without having a firm grasp on it.

Teaching Suggestions--Summary

The attitude of the vocational teacher toward the physically handicapped student is the most important factor in providing adequate, quality instruction. Creative thinking is often required when dealing with individuals who are physically handicapped; the vocational teacher and the student may need to develop new instructional techniques and/or equipment adaptations together

And last but not least, the success of the vocational program rests to a great degree on the successful job placement of its graduates. The vocational teacher must be effective in helping the physically handicapped graduate acquire an appropriate and related job.

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APPENDIX B-2

RESOURCE LIST

There are many agencies, associations, and businesses that provide services and products relating to the physically handicapped. Selected ones are listed here but there are many others. Consult with the special education personnel in the local school; talk to representatives of related services in the Kentucky Department of Education, such as Bureau of Vocational Education, Bureau of Education for Exceptional Children, and Bureau of Rehabilitation Services; and contact the names in this section for additional information in understanding the physically handicapped individuals and in providing effective instruction.

In addition, examples of several aids and devices (with names and addresses) are given later in this section.

The new technology based on microelectronics is becoming very helpful in providing additional aids to the physically handicapped. More new aids and devices will likely appear in the near future.

Kentucky resources are starred (*).

GENERAL SERVICE PROVIDERS

The Council for Exceptional Children 1920 Association Drive Reston, Virginia 22091	Provides resource materials and conducts research on the education of exceptional children
Library of Congress Division for the Blind and Physically Handicapped Washington, D.C. 20542	Provides braille, large print, and recorded books and popular magazines for the blind; provides listings of aids for handicapped readers.
President's Committee on Employment of the Handicapped 1111 20th Street, N.W. Washington, D. C. 20210	Provides materials to encourage employers to hire the handicapped; provides success stories and other data about employment opportunities for the handicapped.
United States Office of Education Bureau of Education for the Handicapped 400 Maryland Avenue, S.W. Donahoe Building Washington, D.C. 20202	Funds research to improve the education of handicapped persons. Supports demonstration projects and resource centers to provide assistance in teaching handicapped students.
United States Office of Education Bureau of Occupation and Adult Education 7th and D Streets, S.W. Washington, D.C. 20202	Sponsors activities to enhance the occupational status of handicapped persons
*Kentucky Department of Education Bureau of Education for Exceptional Children Division of Physically Handicapped Capital Plaza Tower Frankfort, KY 40601	Provides leadership and resources for educational programs
*Kentucky Department of Education Bureau of Rehabilitation Services Division of Rehabilitation Services Capital Plaza Tower Frankfort, KY 40601	Provides leadership and resources for assisting the handicapped
*Kentucky Department of Education Bureau of Vocational Education Special Vocational Education Functions Unit Capital Plaza Tower Frankfort, KY 40601	Provides leadership and resources for assisting the disadvantaged and handicapped in vocational education settings

RESOURCES FOR SPECIAL TYPES OF IMPAIRMENTS

Accent on Living
P. O. Box 700
Bloomington, IL 61701

American Foundation for the Blind
15 West 16th Street
New York, NY 10011

Alexander Graham Bell Association for the Deaf
3417 Volta Place, N. W.
Washington, D. C. 20007

*American Printing House for the Blind
1839 Frankfort Avenue
Louisville, KY 40206

Braille Institute of America
741 North Vermont
Los Angeles, CA 90029

Center for Independent Living
2539 Telegraph Avenue
Berkeley, Ca 94704

*Epilepsy Association of Kentucky, Inc.
845 Lane Allen Road
Lexington, KY 40504

Junior National Association of the Deaf
Gallaudet College
Florida Avenue at 7th Street, N. E.
Washington, D. C. 20002

*Kentucky Association for Children with Learning Disabilities
Oppenheimer Hall
University of Louisville
Louisville, KY 40202

*Kentucky Occupational Therapy Association
2050 Versailles Road
Lexington, KY 40504

*Kentucky School for the Blind
1867 Frankfort Avenue
Louisville, KY 40206

*Kentucky School for the Deaf
South Second Street
Danville, KY 40422

*Kentucky Society for the Prevention of Blindness
Heyburn Building
4th and Broadway
Louisville, KY 40202

Mainstream, Inc.
1145 - 15th Street, N. W.
Washington, D. C. 20005

National Association of the Deaf
814 Thayer Avenue
Silver Springs, MD 20910

National Braille Association
85 Goodwin Avenue
Midland Park, NJ 08432

National Center for a Barrier-Free Environment
7315 Wisconsin Avenue, N. W.
Washington, D. C. 20014

National Institute for Rehabilitation Engineering
Pompton Lakes, NJ 07442

National Paraplegia Foundation
333 North Michigan Avenue
Chicago, IL 60601
(Publishes Paraplegia Life, a bi-monthly magazine)

National Society for the Prevention of Blindness, Inc.
79 Madison Avenue
New York, NY 10016

National Technical Institute
for the Deaf
One Lomb Memorial Drive
Rochester, NY 14623

Recording for the Blind, Inc.
499 West Charleston Road
Palo Alto, CA 94306

*Recording for the Blind, Inc.
2 Alumni Drive
University of Kentucky
Lexington, KY 40506

Registry of Interpreters for
the Deaf
P. O. Box 1339
Washington, D. C. 20013

Science for the Visually
Handicapped
919 Walnut Street, 8th Floor
Philadelphia, PA 19107
(Manufactures aids, instruments,
and materials)

*United Cerebral Palsy of the
Bluegrass
465 Springhill Drive
Lexington, KY 40503

*United Cerebral Pasy
614 S. Floyd Street
Louisville, KY 40201

*United Cerebral Palsy of Eastern
Kentucky
P. O. Box 413
Ashland, KY 41101

United Cerebral Palsy of Northern
Kentucky
Redwood School
70 Orphange Road
Ft. Mitchell, KY 41017

EXAMPLES OF AIDS AND DEVICES FOR THE PHYSICALLY HANDICAPPED

Below is a list of aids and devices referred to in this handbook, along with addresses of the companies where they can be obtained. This is not intended to be a comprehensive list of available products.

1. Adjustable Wheelchair

Motorette Corporation
6014 Reseda Blvd.
Tarzana, California 91356

2. Braille and "Talking" Calculators

A.F.B. Calculator
American Foundation for the Blind
15 West 16th Street
New York, New York 10011

Calcu-Tac Model T8B (braille output on
paper tape--scientific calculator)
Science for the Blind
221 Rock Hill Road
Bala Cynwyd, Pennsylvannia 19004

A.R.C. Model 9500 (talking)
Master Specialties Company
647 Babcock Road
Costa Mesa, California 92627

Speech Plus Talking Calculator
Telesensory Systems, Inc.
1889 Page Mill Road
Palo Alto, California 94304

3. E-Z Reacher

Physical Aids Manufacturing Co.
4848 Ronson Court
San Diego, California

4. OPTACON

Telesensory Systems, Inc.
1889 Page Mill Road
Palo Alto, California 94304

5. Braille Computer

Protestant Guild for the Blind
465 Belmont Street
Watertown, Massachusetts 02172

6. Sensory Aids Catalog (forthcoming)

   Sensory Aids Foundation
   399 Sherman Avenue
   Palo Alto, California 94306

7. Stereotoner

   Mauch Laboratories, Inc.
   3035 Dryden Road
   Dayton, Ohio 45439

8. Telephone Add-Ons

   Contact any telephone company business office. The Bell Telephone System's booklet, "Services for Special Needs," which describes telephone modifications, is available upon request.

9. Braille Computer Terminal

   Triformation Systems, Inc.
   P.O. Box 2433
   Stuart, Florida 33494

10. Prostheses

    Veteran's Administration
    Research Center for Prosthetics
    252 Seventh Avenue
    New York, New York 10001

APPENDIX B-3

JOB DESCRIPTIONS

FROM

DICTIONARY OF OCCUPATIONAL TITLES

ACCOUNTANT (profess. & kin.) manager, office 160.167-010

Directs and coordinates activities of workers engaged in general accounting, or applies principles of accounting to devise and implement system for general accounting: Directs and coordinates activities of workers engaged in keeping accounts and records, or performing such bookkeeping activities as recording disbursements, expenses, and tax payments. Prepares individual, division, or consolidated balance sheets to reflect company's assets, liabilities, and capital. Prepares profit and loss statements for specified accounting period. Audits contracts, orders, and vouchers, and prepares reports to substantiate individual transactions prior to settlement. May represent company before government agencies upon certification by agency involved. May work independently for fee or as member of accounting firm and be designated as ACCOUNTANT, PUBLIC (profess. & kin.).

ACCOUNTING CLERK (clerical) 216.482-010

Performs any combination of routine calculating, posting, and verifying duties to obtain primary financial data for use in maintaining accounting records: Posts details of business transactions, such as allotments, disbursements, deductions from payrolls, pay and expense vouchers, remittances paid and due, checks, and claims. Totals accounts, using adding machine. Computes and records interest charges, refunds, cost of lost or damaged goods, freight or express charges, rentals, and similar items. May type vouchers, invoices, account statements, payrolls, periodic reports, and other records. May reconcile bank statements. May be designated according to type of accounting performed as ACCOUNTS-PAYABLE CLERK (clerical); ACCOUNTS-RECEIVABLE CLERK (clerical); ADVANCE-PAYMENT CLERK (clerical); BILL-RECAPITULATION CLERK (light, heat, & power); CASH-POSTING CLERK (clerical); RENT AND MISCELLANEOUS REMITTANCE CLERK (insurance); TAX-RECORD CLERK (light, heat, & power).

ACCOUNTING CLERK, DATA PROCESSING (clerical) 216.382-010

Compiles financial and business transaction data from vouchers, invoices, transmittal sheets, and other source documents to prepare computer-input forms, and verifies and reconciles errors on computer printouts to maintain accounting records: Reviews source documents, such as vouchers, invoices, cash receipts, and purchase orders, for completeness and accuracy. Posts items such as revenue, expense, and cash receipt amounts in journal, assigning as debits or credits to appropriate accounts. Prepares computer-input forms for processing of transaction data, using code book. Compares computer-printout data against source documents and journal entries to verify accuracy, and prepares input forms to reconcile errors. Batches documents after processing, totals amounts in batch, using adding machine, and files documents. Periodically reviews records and subsequent computer printouts to balance accounts and to identify suspense items or delinquent accounts for further action.

ACCOUNTING MANAGER, OFFICE (see ACCOUNTANT)

ADMISSIONS EVALUATOR (education) administrative 205.367-010
assistant; degree clerk

Examines academic records of students to determine eligibility for graduation or for admission to college, university, or graduate school. Compares transcripts of courses with school entrance or degree requirements and prepares evaluation form listing courses for graduation. Studies course prerequisites, degree equivalents, and accreditation of schools, and computes grade-point averages to establish students' qualifications for admission, transfer, or graduation. Explains evaluations to students. Refers students with academic discrepancies to proper department heads for further action. Types list of accepted applicants or of degree candidates and submits it for approval. Issues registration permits and records acceptances and fees paid. Performs related duties such as preparing commencement programs and computing student averages for honors. May advise students concerning their eligibility for teacher certificates. May specialize in evaluation of transfer students' records and be designated EVALUATOR, TRANSFER STUDENTS (education).

ALTERATION TAILOR (garment; per. ser.; ret. tr.) 785.261-010
alterer; busheler

Alters clothing to fit individual customers or repairs defective garments, following alteration or repair tags or marks on garments. Examines tag or garment to ascertain necessary alterations. Removes stitches from garment, using ripper or razor blade. Shortens or lengthens sleeves and legs, expands or narrows waist and chest, raises or lowers collar, and inserts or eliminates padding in shoulders while maintaining drape and proportions of garment. Trims excess material, using scissors. Resews garment, using needle and thread or sewing pocket flaps, and coat linings. May fit garments on customer to determine required alterations (GARMENT FITTER, ret. tr.). May press garment, using hand iron (PRESSER, HAND, any ind.) or pressing machine (PRESSER, MACHINE, any ind.). May be designated according to type of garment altered or repaired as TAILOR, MEN'S READY-TO-WEAR (ret. tr.); TAILOR, WOMEN'S-GARMENT ALTERATION (ret. tr.); or according to garment part altered or repaired as PANTS BUSHELER (ret. tr.); VEST BUSHELER (ret. tr.).

APPLIANCE REPAIRER (elec. equip.) repairer 723.584-010

Repairs portable, household electrical appliances, such as fans, heaters, vacuum cleaners, toasters, and flatirons, on assembly line: Refers to inspector's checklist, or defect-symbol marked on appliance, to identify defective or malfunctioning part. Disassembles appliance to remove defective part, using power screwdrivers, soldering iron, and handtools. Installs new part, and reassembles appliance. Records nature of repair in log or on mechanical counting device. Maintains stock of replacement parts. May determine repair requirements by connecting appliance to power source or examining parts for defects while disassembling. May file or bend parts to remove burs, or to improve alinement and fit. May hold appliance against buffing or polishing wheel to remove scratches from metal surfaces. May touch up paint defects, using brush or spray gun. May be designated according to part repaired as HEATING-ELEMENT REPAIRER (elec. equip.); or appliance repaired as ELECTRIC-FRYING-PAN REPAIRER (elec. equip.); FOOD-MIXER REPAIRER (elec. equip.); TOASTER-ELEMENT REPAIRER (elec. equip.); VACUUM-CLEANER REPAIRER (elec. equip.).

APPOINTMENT CLERK (clerical) reception clerk 237.367-010

Schedules appointments with employer or other employees for clients or customers by mail, phone, or in person, and records time and date of appointment in appointment book. Indicates in appointment book when appointments have been filled or cancelled. May telephone or write clients to remind them of appointments. May receive payments for services, and record them in ledger. May receive callers (RECEPTIONIST, clerical). May operate switchboard (TELEPHONE OPERATOR, clerical).

ASSEMBLER (see ASSEMBLER, SMALL PARTS)

ASSEMBLER, ELECTRICAL ACCESSORIES (elec. equip.) 729.687-010
I assembler; contact assembler; switchboard contact assembler

Assembles mechanical parts of electrical equipment, such as light sockets, switches, terminal boards, and plugging devices: Fits together parts, such as socket bases, shafts, contact fingers, and springs, in specified sequence, using fixtures, screwdrivers, and air nut runners. Tests actions of moving parts and listens for unusual sounds to detect defective parts or faulty operation. Verifies completed assembly against pictorial drawings. May be designated according to type of equipment assembled as CONTACT-FINGER ASSEMBLER (elec. equip.); PLUG ASSEMBLER (elec. equip.); PULL-SOCKET ASSEMBLER (elec. equip.); PUSH-BUTTON-SWITCH ASSEMBLER (elec. equip.); TERMINAL-BLOCK ASSEMBLER (elec. equip.); TUMBLER-SWITCH ASSEMBLER (elec. equip.).

COMPOSITOR (print. & pub.) typesetter; typographer 973.381-010

Sets type by hand and machine, and assembles type and cuts in a galley, for printing articles, headings, and other printed matter, determining type size, style, and compositional pattern from work order: Measures copy with line gage to determine length of line. Sets composing stick to line length indicated on line gage. Selects type from type case and sets it in compositional sequence, reading from copy. Inserts spacers between words or units to balance and justify lines. Transfers type from stick to galley when setup is complete. Inserts leads, slugs, or lines of quads between lines to adjust length of setup. Prepares proof copy of setup, using proof press. Examines proof for errors, corrects setup, and forwards it to imposing stone or bank. Cleans type after use and distributes it to specified boxes in type case. May be designated as JOB COMPOSITOR (print. & pub.) when setting type in commercial printing establishments or AD COMPOSITOR (print. & pub.) when assembling type and cuts for display advertisements.

COMPUTER OPERATOR (clerical) console operator 213.362-010

Monitors and controls electronic computer to process business, scientific, engineering, or other data, according to operating instructions: Sets control switches on computer and peripheral equipment, such as external memory, data communicating, synchronizing, input, and output recording or display devices, to integrate and operate equipment according to program, routines, subroutines, and data requirements specified in written operating instructions. Selects and loads input and output units with materials, such as tapes or punchcards and printout forms, for operating runs or oversees operators of peripheral equipment who perform these functions. Moves switches to clear system and start operation of equipment. Observes machines and control panel on computer console for error lights, verification printouts and error messages, and machine stoppage or faulty output. Types alternate commands into computer console, according to predetermined instructions, to correct error or failure and resume operations. Notifies supervisor of errors or equipment stoppage. Clears unit at end of operating run and reviews schedule to determine next assignment. Records operating and down time. Wires control panels of peripheral equipment. May control

ASSEMBLER, SMALL PARTS (any ind.) 706.684-010

Performs one or more repetitive operations on assembly line to massproduce small products. Positions parts in specified relationship to each other, using hands, tweezers, or tongs. Bolts, screws, clips, cements, or otherwise fastens parts together by hand or using handtools or portable powered tools. Frequently works at bench as member of assembly group assembling one or two specific parts and passing unit to another worker. May load and unload previously setup machines, such as arbor presses, drill presses, taps, spot-welding machines, riveting machines, milling machines, or broaches to perform fastening, force fitting, or light metal-cutting operation on assembly line. May be assigned to different work stations as production needs require, or shift from one station to another to reduce fatigue factor. May be specified according to product assembled.

ASSISTANT VICE PRESIDENT (see VICE PRESIDENT, FINANCIAL INSTITUTION)

ATTENDANT, CHILDREN'S INSTITUTION (any ind.) 359.677-010
child-care attendant; house parent

Cares for group of children housed in city, county, private, or other similar institution, under supervision of superintendent of home: Awakens children each morning and insures children are dressed, fed, and ready for school or other activity. Gives instructions to children regarding desirable health and personal habits. Plans and leads recreational activities and participates or instructs children in games. Disciplines children and recommends or initiates other measure to control behavior. May make minor repairs to clothing. May supervise housekeeping activities of other workers in assigned section of institution. May counsel or provide similar diagnostic or therapeutic services to mentally disturbed, delinquent, or handicapped children.

AUTOMOBILE MECHANIC (auto ser.) garage mechanic 620.261-010

Repairs and overhauls automobiles, buses, trucks, and other automotive vehicles: Examines vehicle and discusses with customer or AUTOMOBILE-REPAIR-SERVICE ESTIMATOR (auto ser.); AUTOMOBILE TESTER (auto ser.); or BUS INSPECTOR (auto ser.) nature and extent of damage or malfunction. Plans work procedure, using charts, technical manuals, and experience. Raises vehicle, using hydraulic jack or hoist, to gain access to mechanical units bolted to underside of vehicle. Removes unit, such as engine, transmission, or differential, using wrenches and hoist. Disassembles unit and inspects parts for wear, using micrometers, calipers, and thickness gages. Repairs or replaces parts, such as pistons, rods, gears, valves, and bearings, using mechanic's handtools. Overhauls or replaces carburetors, blowers, generators, distributors, starters, and pumps. Rebuilds parts, such as crankshafts and cylinder blocks, using lathes, shapers, drill presses, and welding equipment. Rewires ignition system, lights, and instrument panel. Relines and adjusts brakes, alines front end, repairs or replaces shock absorbers, and solders leaks in radiator. Mends damaged body and fenders by hammering out or filling in dents and welding broken parts. Replaces and adjusts headlights, and installs and repairs accessories, such as radios, heaters, mirrors, and windshield wipers. May be designated according to specialty as AUTOMOBILE MECHANIC, MOTOR (auto. ser.); BUS MECHANIC (auto ser.); DIFFERENTIAL REPAIRER (auto ser.); ENGINE-REPAIR MECHANIC, BUS (auto. ser.). When working in service station may be designated AUTOMOBILE-SERVICE STATION MECHANIC (auto ser.). Additional titles: COMPRESSOR MECHANIC, BUS (auto ser.); DRIVE-SHAFT-AND-STEERING-POST REPAIRER (auto ser.); ENGINE-HEAD REPAIRER (auto ser.); MOTOR ASSEMBLER (auto ser.).

AUTOMOBILE-MECHANIC HELPER (auto. ser.) automobile-mechanic assistant; mechanic helper 620.684-014

Assists AUTOMOBILE MECHANIC (auto. ser.) in repairing automobiles, buses, trucks, and other automotive vehicles: Raises vehicle to specified level, using hydraulic jack. Removes and disassembles unit, such as engine, transmission, or differential, to be repaired, using hand-tools and power tools. Cleans unit, using prescribed solvent. Lubricates and washes vehicle. Performs other duties as described under HELPER (any ind.). May be designated according to specialty of worker assisted as TRUCK-MECHANIC HELPER (auto. ser.).

BAGGER (ret. tr.) grocery 920.687-014

Bags groceries in sack or carton and carries or pushes groceries in cart to customer's car. Collects shopping carts from parking and surrounding areas and returns carts to store. Replaces cleaning and wrapping supplies used at food checkout counter. Cleans work area and carries empty bottles and trash to storeroom. May price and stack food articles on shelves.

BILLING CLERK (see BILLING-MACHINE OPERATOR)

BILLING-MACHINE OPERATOR (clerical) bill clerk; biller; billing clerk; invoicing-machine operator 214.482-010

Operates billing machines with or without computing devices to prepare bills, statements, and invoices to be sent to customers, itemizing amounts customers owe: Inserts blank billing sheets in machine and sets carriage. Transcribes data from office records, such as customer's name, address, and items purchased or services rendered. Calculates totals, net amounts, and discounts by addition, subtraction, and multiplication, and records computations. May make computations on separate adding and calculating machines. May be designated according to type of bill prepared as DELINQUENT-NOTICE-MACHINE OPERATOR (clerical).

BOILERHOUSE SUPERINTENDENT (see STATIONARY-ENGINEER SUPERVISOR)

BOOKKEEPER (clerical) II 210.382-018

Keeps one section of set of financial records, performing duties as described under BOOKKEEPER (clerical) I. May be designated according to section of bookkeeping records kept, such as ACCOUNTS-PAYABLE BOOKKEEPER (clerical); ACCOUNTS-RECEIVABLE BOOKKEEPER (clerical); CHRISTMAS-CLUB BOOKKEEPER (finan. inst.); INTEREST-ACCRUAL BOOKKEEPER (finan. inst.); SAFE-DEPOSIT-BOX BOOKKEEPER (finan. inst.); SAVINGS BOOKKEEPER (finan. inst.); Additional titles: CIRCULATION BOOKKEEPER (print & pub.); CLASSIFIED-ADVERTISING BOOKKEEPER (print & pub.); DISCOUNT BOOKKEEPER (finan. inst.); INVESTMENT-BONDS BOOKKEEPER (finan. inst.); TRUST BOOKKEEPER (finan. inst.).

BULLDOZER OPERATOR (any ind.) I grader operator 850.683-010

Operates tractors equipped with concave blade attached across front to gouge out, level, and distribute earth and to push trees and rocks from land preparatory to constructing roads and buildings or planting crops or in mining, quarrying, and lumbering operations: Fastens attachments to tractor with clevis or wedge-pin hitches. Connects hydraulic hoses, belts, mechanic linkage, or power take-off shaft to tractor to provide power to raise, lower, or tilt attachment. Moves levers to control tool bars, carriers, and disks. Moves levers and depresses pedals to maneuver tractor and raise, lower, and tilt attachment to clear right-of-way. Feels lever and listens for stalling action of engine to estimate depth of cut. Drives bulldozer in successive passes over terrain to raise or lower terrain to specified grade. May grease, oil, and repair tractor. When required to work to close tolerances, may be designated FINE-GRADE-BULLDOZER OPERATOR (any ind.). When operating bulldozer to loosen soil, may be designated SCARIFIER OPERATOR (any ind.). May be designated according to type of tractor operated as CRAWLER-TRACTOR OPERATOR (any ind.), or attachment added as ANGLEDOZER OPERATOR (any ind.). May operate bulldozer to scrape surface clay to determine existance and types of clay deposits or to gather clay into piles preparatory to removal to brick and tile manufacturing plant and be designated SCRAPER OPERATOR (mining and quarrying).

BUYER (mfg) (see PURCHASING AGENT)

CARHOP (hotel & rest.) drive-in waiter/waitress 311.477-010

Serves food and refreshments to patrons in cars: Takes order and relays it to kitchens or serving counter to be filled. Places filled order on tray and fastens tray to car door. Totals and presents check to customer and accepts payment for service. Removes tray and stacks dishes for return to kitchen. May prepare fountain drinks, such as sodas, milkshakes, and malted milks.

CARPENTER-LABOR SUPERVISOR (const.) 860.137-010

Supervises and coordinates activities of workers engaged in supplying materials to workers who construct, erect, install, and repair wooden structures and fixtures. Directs work crew to strip forms and dismantle temporary wooden structures. May supervise workers engaged in pouring concrete into wooden forms. Performs other duties as described under SUPERVISOR (any ind.).

CARPET CLEANER (see RUG CLEANER, HAND)

CASEWORKER (social ser.) 195.107-010

Counsels and aids individuals and families requiring assistance of social service agency: Interviews clients with problems, such as personal and family adjustments, finances, employment, and physical and mental impairments to determine nature and degree of problem. Secures information, such as physical, psychological, and social factors, contributing to client's situation and evaluates these and client's capacities. Counsels client individually, in family or in other small groups regarding plans for meeting needs and aids client to mobilize inner capacities and environmental resources to improve social functioning. Helps client to modify attitudes and patterns of behavior by increasing understanding of self, personal problems, and client's part in creating them. Refers clients to community resources and other organizations. Compiles records. May secure supplementary information, such as employment, medical records, or school reports. May determine client's eligibility for financial assistance. May work in collaboration with other professional disciplines. Usually required to have knowledge and skill in casework method acquired through degree program at school of social work. When rendering advisory services to agencies, groups, or individuals, may be designated as SOCIAL-WORK CONSULTANT, CASEWORK (social ser.).

CASHIER-CHECKER (ret. tr.) 211.462-014

Operates cash register to itemize and total customer's purchases in self-service grocery or department store: Reviews price sheets to note price changes and sale items. Records prices and departments, subtotals taxable items, and totals purchases on cash register. Collects money from customer and makes change. Stocks shelves and marks prices on containers. May weigh items, bag merchandise, issue trading stamps, and redeem food stamps and promotional coupons. May cash checks. May be designated according to items checked as GROCERY CHECKER (ret. tr.).

CHECK-PROCESSING CLERK (finan. inst.) I customer-account clerk; payment-processing clerk 216.387-010

Examines and processes incoming checks and credit-card-payment coupons in bank: Scans incoming checks for irregularities, such as incorrect dates and missing, altered, and illegible entries. Date-stamps items to record receipt. Photographs checks and coupons for bank copies. Sorts checks by account number and date or type of payment. Compares signatures on checks with signature cards. Verifies that check and coupon amounts are identical. Computes, using adding machine, check totals for each account, compares total with account balance, and notifies supervisor of insufficient funds. Identifies, stamps, and forwards checks listed on stop-payment report and coupons to other bank personnel. May post figures to bank records. May submit checks above specified amount to supervisor for review.

CHECKER (clerical) II check clerk; data clerk; proofreader; report checker 209.687-010

Performs routine checking duties to insure accuracy of recorded data: Compares information or figures on one record against the same data on other records. Corrects or records omissions, errors, or inconsistencies found. Is not characteristically engaged in making computations (AUDIT CLERK; CALCULATING-MACHINE OPERATOR) but does use arithmetic. Does not check incoming or outgoing shipments, or record or keep tallies (RECEIVING CHECKER, clerical; SHIPPING CHECKER, clerical). May be designated according to type of clerical work checked as BILLING CHECKER (clerical); ENTRY EXAMINER (clerical); INSTALLMENT-ACCOUNT CHECKER (clerical). Additional Titles: ASSET-CARD CLERK (clerical); COUPON-MANIFEST CLERK (clerical); OUTLAW-LOAN-RECORD CLERK (clerical); PRICE CHECKER (clerical); PRINTED-FORMS PROOFREADER (clerical); TYPING CHECKER (clerical).

CHILD-CARE ATTENDANT, SCHOOL (per. se.) 355.674-010

Attends to personal needs of handicapped children while in school to receive specialized academic and physical training: Wheels handicapped children to classes, lunchrooms, and treatment rooms. Secures children in equipment, such as slings or stretchers, and places into baths or pools for physical therapy treatment. Helps children to walk, board buses, put on prosthetic appliances, eat, dress, and perform other physical activities as their needs require. May use hoist to raise and lower children into pools or baths.

CLAIMS CLERK (insurance) I 241.362-010

Reviews insurance-claim forms for completeness; secures and adds missing data; and trasmits claims for payment or further investigation: Reviews insurance-claim forms and related documents for completeness; calls or writes insured or other involved persons for missing information; and posts or attaches information to claim file. Reviews insurance policy to determine coverage. Calculates amount of claim, using desk calculator. Transmits routine claims for payment or advises claims supervisor if further investigation is indicated.

CLEANER (any ind.) II, automobile washer 919.687-014

Cleans interiors and exteriors of transportation vehicles, such as airplanes, automobiles, buses, railroad cars, and streetcars: Cleans interior of vehicle, using broom, cloth, mop, vacuum cleaner, and whisk broom. Cleans windows with water, cleansing compounds, and cloth or chamois. Replenishes sanitary supplies in vehicle compartments. Removes dust, grease, and oil from exterior surfaces of vehicles, using steam-cleaning equipment, or by spraying or washing vehicles, using spraying equipment, brush or sponge. May polish exterior of vehicle. May fumigate interior of vehicle, using fumigating gases or sprays. May be designated according to type of vehicle cleaned as AIRPLANE CLEANER (air trans.); BUS CLEANER (auto. ser.); CAR CLEANER (r.r. trans.); COACH CLEANER (r.r. trans.); TRUCK WASHER (dairy prod.). When cleaning aircraft interiors may be designated CABIN-SERVICE AGENT (air trans.).

CLEANER, COMMERCIAL (see CLEANER, COMMERCIAL OR INSTITUTIONAL)

CLEANER, COMMERCIAL OR INSTITUTIONAL (any ind.) 381.687-014
char worker; clean-up worker; housekeeper; janitor; laborer, building maintenance; mopper; porter; scrubber; sweeper

Keeps premises of office building, apartment house, or other commercial or institutional building in clean and orderly condition: Cleans and polishes lighting fixtures, marble surfaces, and trim and performs duties described in CLEANER (any ind.) I. May cut and trim grass, and shovel snow, using power equipment or handtools. May deliver messages. May transport small equipment or tools between departments. May set up tables and chairs in auditorium or hall. May be designated according to duties performed as HALL CLEANER (hotel & rest.); LIGHT-FIXTURE CLEANER (any ind.); MARBLE CLEANER (any ind.); METAL POLISHER (any ind.); PAINT CLEANER (any ind.); or according to equipment used as SCRUBBING-MACHINE OPERATOR (any ind.).

CLEANER, HOSPITAL (medical ser.) 323.687-010

Cleans hospital wards, rooms, baths, laboratories, offices and halls: Washes bedframes, brushes mattresses, and remakes beds after dismissal of patients. Keeps utility and storage rooms in neat and orderly condition. Distributes laundered articles and linens in wards. Replaces soiled drapes and cubicle curtains in wards. Performs other duties as described under CLEANER (any ind.) I. May serve patient's meals and remove trays and dishes. May disinfect and sterilize equipment and supplies, such as rubber gloves, syringes, and test tubes, using germicides and sterilizing equipment.

CLEANER, INSTITUTIONAL (see CLEANER, COMMERCIAL OR INSTITUTIONAL)

CLERK, ADMINISTRATIVE (clerical) clerk, 219.362-010
general office

Compiles and maintains records of business transactions and office activities of establishment, performing variety of following or similar clerical duties and utilizing knowledge of systems or procedures: Copies data and compiles records and reports. Tabulates and posts data in record books. Computes wages, taxes, premiums, commissions, and payments. Records orders for merchandise or service. Gives information to and interviews customers, claimants, employees, and sales personnel. Receives stock inventory. Adjusts complaints. Operates office machines, such as typewriter, adding, calculating, and duplicating machines. Opens and routes incoming mail, answers correspondence, and prepares outgoing mail. May take dictation. May prepare payroll. May keep books. May purchase supplies. May be designated according to field of activity or according to location of employment as ADJUSTMENT CLERK (ret. tr.; tel. & tel.); AIRPORT CLERK (air trans.); COLLIERY CLERK (mining & quarrying); DEATH-CLAIM CLERK (insurance); FIELD CLERK (clerical). Additional titles: AGENCY CLERK (insurance); AUCTION CLERK (clerical); BENEFITS CLERK (clerical); CONSTRUCTION-RECORDS CLERK (const.; light, heat, & power); SHOP CLERK (clerical).

CLERK-TYPIST (clerical) 203.362-010

Compiles data and operates typewriter in performance of routine clerical duties to maintain business records and reports: Types reports, business correspondence, application forms, shipping tickets, and other matter. Files records and reports, posts information to records, sorts and distributes mail, answer telephone, and performs similar duties. May compute amounts, using adding or calculating machine. May be designated according to records typed as TRUST-REMITTANCE CLERK (finan. inst.). May type on or from specialized forms and be designated GUEST-HISTORY CLERK (hotel & rest.); SECURITY-INDEX CLERK (finan. inst.); STORAGE-RECEIPT POSTER (clerical). May compile reports and type prescription data on labels in hospital pharmacy and be designated DISPENSARY CLERK (medical ser.). Additional titles: COLLECTION-CARD CLERK (clerical); MOTOR-POOL CLERK (clerical); ORDER CLERK (light, heat, & power); POLICY-ISSUE CLERK (insurance); REMITTANCE-ACCOUNT CLERK (finan. inst.); VERIFICATION-AND-PROXY CLERK (finan. inst.).

CLERK-TYPIST, HEAD (see TYPING SECTION CHIEF)

CLERK-TYPIST, MEDICAL (see CLERK-TYPIST)

CLERK, GENERAL (clerical) office clerk, routine 209.562-010

Performs any combination of following and similar clerical tasks requiring limited knowledge of systems or procedures: Writes or types bills, statements, receipts, checks, or other documents, copying information from one record to another. Proofreads records or forms. Counts, weighs, or measures material. Sorts and files records. Receives money from customers and deposits money in bank. Addresses envelopes or packages by hand or with typewriter or addressograph machine. Stuffs envelopes by hand or with envelope stuffing machine. Answers telephone, conveys messages, and runs errands. Stamps, sorts, and distributes mail. Stamps or numbers forms by hand or machine. Copies documents, using office duplicating equipment.

CLERK, MAIL ROOM (see MAIL CLERK)

COMMUNITY HEALTH WORKER (see SOCIAL WORKER, MEDICAL)

COMMUNITY ORGANIZATION WORKER (social ser.) 195.167-010

Plans, organizes, and works with community groups concerned with social problems of community: Stimulates, promotes, and coordinates agencies, groups, and individuals to meet identified needs. Studies and assesses strength and weakness of existing resources. Interprets needs, programs, and services to agencies, groups, and individuals involved and provides leadership assistance. Prepares reports. May assist in budget preparation and presentation. May assist in raising funds. Works in specialized fields, such as aging, juvenile delinquency, urban renewal and redevelopment, and mental and physical health or in public or voluntary coordinating agency, such as community welfare or health council, or combined fund raising and welfare planning council. Usually required to have degree from school of social work.

COMPANY WORKER (mining) (see COMPANY LABORER)

COMPANY LABORER (mining & quarrying) cleaner; digger; laborer, mine; scraper 939.687-014

Works in underground or surface mine, pit, or quarry, or at tipple, mill, or preparation plant, performing any combination of the following tasks: Cleans working areas and haulage tracks; digs and maintains drainage ditches; or shovels muck, ore, coal, or rock aside, into cars, or onto conveyors. Pushes loaded mine cars from working face to haulage road and couples them together for transportation to surface. Positions and adjusts bits on drill shaft and places cables, jacks, roof bolts, and related equipment in specified locations. Trims protrusions from walls and roofs of underground passageways and rooms. Strips (cleans) residue of rock and dirt from exposed coal, ore, or rock formations. Loads, separates, or sorts materials at working face, using shovel or wheelbarrow. Throws calcium or salt around interiors of railroad cars to prevent coal or ore from freezing to cars during winter. May be known according to specific work performed as CAR CLEANER (mining & quarrying); CAR SALTER (mining & quarrying); LOADER (mining & quarrying); MUCKER (mining & quarrying); SHOVELER (mining & quarrying); STRIPPER (mining & quarrying); TRIMMER (mining & quarrying).

computer to provide input or output service for another computer under instructions from operator of that unit. May operate small-scale computer (know variously as mini-limited-storage-, or desk-size computer) and related on-line or off-line equipment and be designated SMALL-SCALE-COMPUTER OPERATOR (clerical).

CONSTRUCTION WORKER (const.) I 869.664-014

Performs any combination of following duties on construction projects, usually working in utility capacity, by transferring from one task to another where demands require worker with varied experience and ability to work without close supervision: Measures distances from grade stakes, drives stakes, and stretches tight line. Bolts, nails, alines, and blocks up under forms. Signals operators of construction equipment to facilitate alinement, movement, and adjustment of machinery to conform to grade specifications. Levels earth to fine grade specification, using pick and shovel. Mixes concrete, using portable mixer. Smooths and finishes freshly poured cement or concrete, using float, trowel, or screed. Positions, joins, alines, and seals pipe sections. Erects scaffolding, shoring, and braces. Mops, brushes, or spreads paints or bituminous compounds over surfaces for protection. Sprays materials such as water, sand, steam, vinyl, paint, or stucco through host to clean, coat, or seal surfaces. Applies calking compounds by hand or with calking gun to seal crevices. Grinds, sands, or polishes surfaces, such as concrete, marble, terrazzo, or wood flooring, using abrasive tools or machines. Performs variety of tasks involving dextrous use of hands and tools, such as demolishing buildings, sawing lumber, dismantling forms, removing projections from concrete, mounting pipe hangers, and cutting and attaching insulating material. May be designated according to duties performed as BATTERBOARD SETTER (const.); BILLBOARD-ERECTOR HELPER (const.); BRICKLAYER, PAVING BRICK (const.); BUILDING CLEANER, SANDBLASTER (const.); BUILDING CLEANER, STEAM (const.); CALKER (const.). Additional titles: CARPENTER HELPER, MAINTENANCE (const.); CEMENT MASON, HIGHWAYS AND STREETS (const.); CEMENT SPRAYER NOZZLE (conc. prod.; const.); CONCRETE-WALL-GRINDER OPERATOR (const.); CORRUGATED-SHEET-MATERIAL SHEETER (const.); CRADLE PLACER (const.); DAMPROOFER (const.); DRAIN LAYER (const.); DUCT INSTALLER (const.; mfd. bldgs.); FINE GRADER (const.); FITTER (const.; pipe lines); FLOOR FINISHER (const.); FLOOR-SANDING-MACHINE OPERATOR (const.); FORM-BUILDER HELPER (const.); FORM SETTER, METAL ROAD-FORMS (const.); FORM SETTER, STEEL FORMS (const.); FORM SETTER, STEEL-PAN FORMS (const.); FOUNDATION-DRILL-OPERATOR HELPER (const.); GLAZIER HELPER (const.); GROUND WIRER (const.); HOLDER, PILE DRIVING (const.); HYDRANT-AND-VALVE SETTER (const.); INSULATION INSTALLER (const.); INSULATION WORKER (const.); JOIST SETTER, ADJUSTABLE STEEL (const.); LABORER, ADJUSTABLE STEEL JOIST (const.); LABORER, CARPENTRY (const.); LABORER, CARPENTRY, DOCK (const.); LAYER-OUT, PLATE GLASS (const.); LIGHTNING-ROD ERECTOR (const.); MARBLE-SETTER HELPER (const.); ORNAMENTAL-IRON-WORKER HELPER (const.); PAINTER, ROUGH (const.); PAINTER, STRUCTURAL STEEL (const.); PAINT-STRIPPING-MACHINE OPERATOR (const.); PERMASTONE DRESSER (const.); PILE-DRIVING SETTER (const.); PIPE CALKER (const.); PIPE LAYER (const.); PIPE-LINE WORKER (const.); PLUMBER HELPER (const.); POINTER, CALKER, AND CLEANER (const.); PUMP-ERECTOR HELPER (const.); RECEIVER SETTER (const.); ROOFER, VINYL COATING (const.); SEAT INSTALLER (const.); SEPTIC-TANK SERVICER (const.); SEWER TAPPER (const.); SHORER (const.); STONE POLISHER (const.); TAPPING-MACHINE OPERATOR (const.); TERRAZZO-WORKER-HELPER (const.); TILE SETTER HELPER (const.); TUCK POINTER (const.); WATERPROOFER (const.); WELL-DRILL-OPERATOR HELPER, CABLE TOOL (const.); WELL-DRILL-OPERATOR HELPER, ROTARY DRILL (const.); WRECKER (const.).

CONTRACTOR (const.) 182.167-010

Contracts to perform specified construction work in accordance with architect's plans, blueprints, codes, and other specifications: Estimates costs of materials, labor, and use of equipment required to fulfill provisions of contract and prepares bids. Confers with clients to negotiate terms of contract. Subcontracts specialized caft work, such as electrical, structural steel, concrete, and plumbing. Purchases material for construction. Supervises workers directly or through subordinate supervisors. May be designated according to specialty license or scope of principal activities as CONTRACTOR, GENERAL ENGINEERING (const.); CONTRACTOR, GENERAL BUILDING (const.).

COOLER WORKER (see DELIVERER, MERCHANDISE)

COSMETOLOGIST (per. ser.) beautician; beauty culturist; beauty operator; cosmetician 332.271-010

Provides beauty services for customers: Analyzes hair to ascertain condition of hair. Applies bleach, dye, or tint, using applicator or brush, to color customer's hair, first applying solution to portion of customer's skin to determine if customer is allergic to solution. Shampoos hair and scalp with water, liquid soap, dry powder, or egg, and rinses hair with vinegar, water, lemon, or prepared rinses. Massages scalp and gives other hair and scalp-conditioning treatments for hygienic or remedial purposes (SCALP-TREATMENT OPERATOR, per.ser.). Styles hair by blowing, cutting, trimming, and tapering, using clippers, scissors, razors, and blow-wave gun. Suggests coiffure according to physical features of patron and current styles, or determines coiffure from instructions of patron. Applies water or waving solutions to hair and winds hair around rollers, or pin curls and finger-waves hair. Sets hair by blow-dry or natural-set, or presses hair with straightening comb. Suggests cosmetics for conditions, such as dry or oily skin. Applies lotions and creams to customer's face and neck to soften skin and lubricate tissues. Performs other beauty services, such as massaging face or neck, shaping and coloring eyebrows or eyelashes, removing unwanted hair, applying solutions that straighten hair or retain curls or waves in hair, and waving or curling hair. Cleans, shapes, and polishes fingernails and toenails (MANICURIST, per. ser.). May be designated according to beauty service provided as FACIAL OPERATOR (per. ser.); FINGER WAVER (per. ser.); HAIR COLORIST (per. ser.); HAIR TINTER (per. ser.); MARCELLER (per. ser.); PERMANENT WAVER (per. ser.); SHAMPOOER (per. ser.).

COST CLERK (clerical) cost-accounting clerk; expensing clerk 216.382-034

Compiles production or sales cost reports on unit or total basis for department or working unit: Calculates individual items, such as labor, material, and time costs, relationship of sales or revenues to costs, and overhead expenditures, using calculating machine. Examines records, such as time and production sheets, payrolls, operations charts and schedules, to obtain data for calculations. Prepares reports showing total cost, selling prices or rates profits. May be designated according to work performed as COST-ESTIMATING CLERK (light, heat, & power); OPERATING-COST CLERK (clerical).

CREDIT MANAGER (see MANAGER, CREDIT AND COLLECTION)

CUSTOMER SERVICE CLERK (ret. tr.) customer-service specialist, post exchange 299.367-010

Performs any combination of following tasks in post exchange: Arranges for gift wrapping, monogramming, printing, and fabrication of such items as desk nameplates and rubber stamps, and repair or replacement of defective items covered by warranty. Takes orders for such items as decorated cakes, cut flowers, personalized greeting cards and stationery, and merchandise rentals and repairs. Prepares special-order worksheet. Keeps record of services in progress. Notifies customer when service is completed and accepts payment. Acts as WEDDING CONSULTANT (ret. tr.). Assists customers to select and purchase specified merchandise (PERSONAL SHOPPER, ret. tr.). Keeps records of items in layaway, receives and posts customer payments, and prepares and forwards delinquent notices (LAYAWAY CLERK, ret. tr.). Issues temporary identification cards from information on military records. Approves customer's checks and provides check-cashing service according to exchange policy. Answers customer's telephone, mail, and in-person inquiries and directs customers to appropriate sales area (INFORMATION CLERK, clerical). Resolves customer complaints and requests for refunds, exchanges, and adjustments. Provides customers with catalogs and information concerning prices, shipping time, and costs.

CUSTOMER-SERVICE REPRESENTATIVE (light, heat, & power; tel. & tel.; waterworks) adjustment clerk; application clerk; order clerk; outside contact clerk; service representative 239.367-010

Interviews applicants for water, gas, electric, or telephone service: Talks with customers by phone or in person and receives orders for installation, turn-on, discontinuance, or change in services. Fills out contract forms, determines charges for service requested, collects deposits, prepares change of address records, and issues discontinuance orders. May solicit sale of new or additional services. May adjust complaints concerning billing or service rendered, referring complaints of service failures, such as low voltage or low pressure to designated departments for investigation. May specialize in visiting customers at their place of residence to investigate conditions preventing completion of service-connection orders and to obtain contract and deposit when service is being used without contract.

DAIRY-PROCESSING-EQUIPMENT OPERATOR (dairy prod.) 529.382-018

Operates continuous flow or vat-type equipment to process milk, cream, and other dairy products, following specified methods and formulas: Connects pipes between vats and processing equipment. Assembles fittings, valves, bowls, plates, disks, impeller shaft, and other parts to equipment with wrench to prepare for operation. Turns valves to pump sterilizing solution and rinse water through pipes and equipment and spray vats with atomizer. Starts pumps and equipment, observes temperature and pressure gages, and opens valves on continuous flow equipment to force milk through centrifuge to separate cream from milk, through homogenizer to produce specified emulsion, and through filter to remove sediment. Turns valves to admit steam and water into pipes to pasteurize milk and to circulate refrigerant through coils to cool milk. Starts pump and agitator, observes pressure, and temperature gages, and opens valves on vat equipment to fill, stir, and steam-heat milk in vat. Pumps or pours specified amounts of liquid or powder ingredients, such as skim milk, lactic culture, stabilizer, neutralizer, and vitamins into vat to make dairy products, such as buttermilk, chocolate milk, or ice cream mix. Tests product for acidity at various stages of processing. Records specified time, temperature, pressure, and volume readings. May be designated according to process performed as BYPRODUCTS MAKER (dairy prod.); CLARIFIER OPERATOR (dairy prod.); COOLER OPERATOR (dairy prod.); HOMOGENIZER OPERATOR (dairy prod.); MIX MAKER (dairy prod.); PASTEURIZER OPERATOR (dairy prod.); SEPARATOR OPERATOR (dairy prod.). May be required to hold license from state board of health or local government unit.

DAY CARE WORKER (see ATTENDENT, CHILDREN'S INSTITUTE)

DECAL APPLIER (any ind.) decal transferrer; design transferrer; print applier 749.684-010

Applies decal designs to surfaces by moisture process: Cleans surface to be covered, using moist cloth. Submerges decal in water to moisten adhesive and backing paper. Positions decal on surface visually or using template and smooths out air bubbles with roller or edge board. Slides backing paper from decal and wipes off excess adhesive with damp cloth. May cut out decals from sheet with scissors. May varnish over design. When applying decals to chinaware may be designated as PRINT DECORATOR (pottery & porc.).

DELIVERER, MERCHANDISE (ret. tr.) 299.477-010

Delivers merchandise from retail store to customers on foot, bicycle, or public conveyance: Unpacks incoming merchandise, marks prices on articles, and stacks them on counters and shelves (STOCK CLERK, SELF-SERVICE STORE, ret. tr.). Walks, ride bicycle, or uses public conveyances to deliver merchandise to customer's home or place of business. Collects money from customers or signature from charge-account customers. Sweeps floors, runs errands, and waits on customers (SALES CLERK, ret. tr.). May drive light truck to deliver orders. May be designated according to merchandise delivered as DELIVERER, FOOD (ret. tr.); DELIVERER, PHARMACY (ret. tr.).

DIETARY AID (see FOOD-SERVICE WORKER, HOSPITAL)

DINING ROOM ATTENDANT (hotel & rest.) 311.677-018

Performs any combination of the following duties to facilitate food service: Carries dirty dishes from dining room to kitchen. Replaces soiled table linens and sets tables with silverware and glassware. Replenishes supply of clean linens, silverware, glassware, and dishes in dining room. Supplies service bar with food, such as soups, salads, and desserts. Serves ice water and butter to patrons. Cleans and polishes glass shelves and doors of service bars and equipment, such as coffee urns and cream and milk dispensers. Makes coffee and fills fruit juice dispensers. Runs errands and delivers food orders to offices.

DISHWASHER (see KITCHEN HELPER)

DISPATCHER (see RECEIVER-DISPATCHER)

DISPATCHER, RADIO (gov. ser.) dispatcher; police radio dispatcher; station operator 379.362-010

Receives complaints from public concerning crimes and police emergencies, broadcasts orders to police radio patrol units in vicinity to investigate complaint, and relays instructions or questions from remote units. Records calls broadcast and complaints received. In some municipalities coordinates all police, fire, ambulance, and other emergency requests, relaying instructions to radio unit concerned. May make operating adjustments to transmitting equipment where station is not automatic and be required to hold federal license. May transmit and receive messages between divisions of own agency and other law enforcement agencies. May monitor silent alarm system to detect illegal entry into business establishments. May contact POLICE OFFICERS (gov. ser.) I and GUARDS, SCHOOL-CROSSING (gov. ser.) to verify assignment locations.

DISPATCHER, SERVICE (light, heat, & power) 959.167-010
schedule clerk; trouble dispatcher

Dispatches customer service workers to install, service, and repair electric, gas, or steam power systems or appliances: Reviews work orders from departments or complaints from customers and records type and scope of service to be performed. Determines and schedules orders according to urgency. Telephones supply storekeeper to verify availability of parts and equipment to insure scheduled work performance. Receives check-in calls from service workers by radio, telephone, or in person. Informs workers of type and location of work to be performed and dispatches workers to job. Keeps records of repairs, installation, removal of equipment or appliances, and hours required on each job. May be designated according to utility as TELEGRAPHIC-SERVICE DISPATCHER (tel. & tel.).

DRAFTER, ASSISTANT (profess. & kin.) 017.281-018

Copies plans and drawings prepared by DRAFTER (profess. & kin.) by tracing them with ink and pencil on transparent paper or cloth spread over drawings, using triangle, T-square, compass, pens, and other drafting instruments. Makes simple sketches or drawings under close supervision.

DRAFTER, CHIEF, DESIGN (light, heat, & power) 017.161-010

Oversees DRAFTERS, ARCHITECTURAL (profess. & kin.); DRAFTERS, ELECTRICAL (profess. & kin.); DRAFTERS, MECHANICAL (profess. & kin.); and DRAFTERS, STRUCTURAL (profess. & kin.) in drawing designs of indoor and outdoor facilities and structures of electrical or gas power plants and substations. Consults with engineering staff on development of plans and designs for buildings and installations and prepares layout diagrams to insure accurate interpretation of designs by workers supervised.

DRAFTER, COMMERCIAL (profess. & kin.) 017.261-026

Performs general duties of DRAFTER (profess. & kin.) in all-around drafting, such as laying out location of buildings, planning of arrangements in offices, large rooms, store buildings, and factories, and drawing of charts, forms, and records. Paints and washes colored drawings when required.

DRILL-PRESS OPERATOR (mach. shop) 606.682-014
production-drilling-machine operator

Operates previously setup drilling machines, such as single-or multiple-spindle drill presses to drill, ream, countersink, spot face, or tap holes in metal or nonmetal workpieces according to specifications: Lifts workpiece manually or with hoist, and positions and secures it on machine table in drilling jig or holding fixture. Moves machine controls to feed tools into workpiece, and engages automatic feed. Observes machine operation, and verifies conformance of drilled workpiece to specifications, using fixed gages, calipers, and micrometers. Changes worn cutting tools, using wrenches. Moves controls to adjust cutting speeds, feed rates, and depth of cut. May assist JOB SETTER (fabric. plastics prod.; mach. mfg.; mach. shop) in setting up machine. May sharpen cutting tools, using bench grinder. May perform minor assembly, such as fastening parts with nuts, bolts, and screws, using power tools and handtolls. May be designated according to product as BARREL REAMER (firearms); or function of machine as REAMER OPERATOR (mach. shop); TAPPER OPERATION (mach. shop).

ELECTRICAL-APPLIANCE REPAIRER (any ind.) 723.381-010
appliance-service representative; small-appliance repairer

Repairs electrical appliances, such as toasters, cookers, percolators, lamps, and irons, using handtools and electrical testing instruments: Examines appliance for mechanical defects and disassembles appliance. Tests wiring for broken or short circuits, using voltmeters, ohmmeters, and other circuit testers. Replaces defective wiring and parts, such as toaster elements and percolator coils, using handtools, soldering iron, and spot-welding equipment. May compute charges for labor and materials. May assist ELECTRICAL-APPLIANCE SERVICER (any ind.) in repairing such appliances as refrigerators and stoves.

ELECTRIC-METER REPAIRER (light, heat, & power) 729.281-014
meter repairer

Inspects, adjusts, and repairs electric meters used for recording electric current consumption: Disassembles defective meters, using handtools. Examines parts of meter for wear and detects warped or bent parts, using straightedge. Soaks electric parts in chemical solutions to clean parts. Removes dirt from other parts, using brushes, sandpaper, and soap and water. Reassembles meter, using new or repaired parts. Turns setscrews or makes other adjustments required to bring meter accuracy within prescribed limits. May test meters for accuracy (ELECTRIC-METER TESTER; light, heat, & power) or for correctness of assembly and dielectric strength, using testing apparatus. May repair demand register mechanism of demand meters. May repair such electric components as instrument transformers and relays. May install meters.

ELECTRIC-MOTOR REPAIRER (any ind.) 721.281-018

Repairs electric motors, generators, and equipment, such as starting devices and switches, following schematic drawings, and using handtools, coil-winding machines, power tools, and test equipment: Disassembles and removes armature, stator, or rotor from housing. Examines coil connections for broken or defective wiring. Tests coils, armatures, stator, rotor, and field coils for continuity, shorts, and grounds and insulation resistance, using test lamp, ammeter, and ohmmeter. Cuts out or removes defective coils and removes insulation from core slots. Cuts and forms insulation and inserts insulation into armature, rotor, or stator slots. Rewinds coils on core while in slots manually or makes replacement coils, using coil-winding machine. Installs and alines prewound coils in slots, using hammer, drift, or mallet. Replaces defective coil leads and solders connections of coil in specified sequence. Examines bearings, shafts, and other moving parts for excessive wear or defects. Refaces commutators and machine parts to specified tolerances, using machine tools. Assembles and tests motor for specified performance. May be designated according to size of motor repaired as FRACTIONAL-HORSEPOWER MOTOR REPAIRER (any ind.); equipment repaired as DYNAMOTOR REPAIRER (any ind.); or part repaired as ARMATURE STRAIGHTENER (elec. equip.); COIL-CONNECTOR REPAIRER (elec. equip.); COMMUTATOR REPAIRER (any ind.); FIELD-COIL REPAIRER (elec. equip.); STATOR REPAIRER (any ind.).

ELECTRICIAN (any ind.) wirer 824.261-010

Plans layout, installs, and repairs wiring, electrical fixtures, apparatus, and control equipment: Plans new or modified installations to minimize waste of materials, provide access for future maintenance, and avoid unsightly, hazardous, and unreliable wiring, consistent with specifications and local electrical codes. Prepares sketches showing location of wiring and equipment, or follows diagrams or blueprints, insuring that concealed wiring is installed before completion of future walls, ceilings, and flooring.

Measures, cuts, bends, threads, assembles, and installs electrical conduit, using such tools as hacksaw, pipe threader, and conduit bender. Pulls wiring through conduit, assisted by ELECTRICIAN HELPER (any ind.). Splices wires by stripping insulation from terminal leads with knife or pliers, twisting or soldering wires together, and applying tape or terminal caps. Connects wiring to lighting fixtures and power equipment, using handtools. Installs control and distribution apparatus, such as switches, relays, and circuit-breaker panels, fastening in place with screws or bolts, using handtools and power tools. Connects power cables to equipment, such as electric range or motor, and installs grounding leads. Tests continuity of circuit to insure electrical compatibility and safety of components, using testing instruments, such as ohmmeter, battery and buzzer, and oscilloscope. Observe functioning of installed equipment or system to detect hazards and need for adjustments, relocation, or replacement. May repair faulty equipment or systems (ELECTRICAL REPAIRER, any ind.). May be required to hold license. May cut and weld steel structural members, using flame-cutting and welding equipment. May be designated according to work location as MINE ELECTRICIAN (mining & quarrying).

ELECTRONICS ASSEMBLER (electronics) 726.684-018

Assembles electronic components, subassemblies, and systems by any one or combination of following methods: Reads work orders, follows production drawings and sample assemblies, and receives verbal instructions regarding duties to be performed. Positions and alines parts in specified relationship to each other in jig, fixture, or other holding device, using tweezer, vacuum probe, or hand instruments. (1) Tends machines or uses handtools and power tools to crimp, stake, bolt, rivet, weld, solder, cement, press fit, or perform similar operation to secure parts in place. (2) Mounts assembled components such as transformers, resistors, capacitors, integrated circuits, and sockets on chassis, panel or printed circuit board. (3) Connects component lead wires to printed-leads and other components, connectors, terminals, and contact points using soldering, welding, thermocompression, or related bonding procedures. (4) Installs finished assemblies or subassemblies in cases and cabinets. (5) Assembles and attaches functional and cosmetic hardware such as caps, clamps, and knobs to assemblies using handtools and power tools. (6) Performs intermediate assembly tasks such as potting, encapsulating, cleaning, coating, epoxy bonding, curing, stamping, etching, impregnating, and color coding parts and assemblies. (7) Tends machines which press or shape component parts such as contacts, shells, and insulators. (8) Tends automatic assembly equipment which joins components and parts. (9) Winds capacitors on manual or automatic winding equipment. (10) Adjusts or trims material from components such as capacitors and potentiometers to change electronic characteristic to specification measured by electronic test instrument. (11) Performs on-line go-not-go testing and inspection using magnifying devices, fixed and moveable measuring instruments, and electronic test equipment to insure parts and assemblies meet production specifications and are free from defects. May perform assembly operations under microscope or other magnifying device. Specific titles may be assigned which designate product, subcomponent, equipment used, or processes.

ELECTRONICS TECHNICIAN (profess. & kin.) 003.161-014

Applies electronic theory, principles of electrical circuits, electrical testing procedures, engineering mathematics, physics, and related knowledge to lay out, build, test, troubleshoot, repair, and modify developmental and production electronic equipment, such as computers, missile-control instrumentation, and machine tool numerical controls: Discusses layout and assembly problems with ELECTRONICS ENGINEER (profess. & kin.) and draws sketches to clarify design details and functional criteria of electronic units. Assembles experimental circuitry (breadboard) or complete prototype model according to engineering instructions, technical manuals, and knowledge of electronic systems and components and their functions. Recommends changes in circuitry or installation specifications to simplify assembly and maintenance. Sets up standard test apparatus or contrives test equipment and circuitry, and conducts functional, operational, environmental, and life tests to evaluate performance and reliability of prototype or production model. Analyzes and interprets test data. Adjusts, calibrates, alines, and modifies circuitry and components and records effects on unit performance. Writes technical reports and develops charts, graphs, and schematics to describe and illustrate systems operating characteristics, malfunctions, deviations from design specifications, and functional limitations for consideration by professional engineering personnel in broader determinations affecting systems design and laboratory procedures. May operate bench lathes, drills, and other machine tools to fabricate nonprocurable items, such as coils, terminal boards, and chassis. May check out newly installed equipment in airplanes, ships, and structures to evaluate system performance under actual operating conditions. May instruct and supervise lower grade technical personnel. May be designated according to specialization in electronic applications as COMPUTER-LABORATORY TECHNICIAN (profess. & kin.); DEVELOPMENT-INSTRUMENTATION TECHNICIAN (profess. & kin.); ELECTRONIC-COMMUNICATIONS TECHNICIAN (profess. & kin.); ELECTRONIC TECHNICIAN, NUCLEAR REACTOR (profess. & kin.); ENGINEERING-DEVELOPMENT TECHNICIAN (aircraft-aerospace mfg.); SYSTEMS-TESTING-LABORATORY TECHNICIAN (profess. & kin.).

ELIGIBILITY WORKER (gov. ser.) 195.267-010

Interviews applicants or recipients to determine eligibility for public assistance: Interprets and explains rules and regulations governing eligibility and grants, methods of payment, and legal rights to applicant or recipient. Records and evaluates personal and financial data obtained from applicant or recipient to determine initial or continuing eligibility, according to departmental directives. Initiates procedures to grant, modify, deny, or terminate eligibility and grants for various aid programs, such as public welfare, employment, and medical assistance. Authorizes amount of grants, based on determination of eligibility for amount of money payments, food stamps, medical care, or other general assistance. Identifies need for social services, and makes referals to various agencies and community resources available. Prepares regular and special reports as required, and submits individual recommendations for consideration by supervisor. Prepares and keeps records of assigned cases.

EMPLOYMENT COUNSELOR (see EMPLOYMENT INTERVIEWER)

EMPLOYMENT INTERVIEWER (profess. & kin.) 166.267-010

placement interviewer

Interviews job applicants to select persons meeting employer qualifications: Reviews completed application and evaluates applicant's work history, education and training, job skills, salary desired, and physical and personal qualifications. Records additional skills, knowledges, abilities, interests, test results, and other data pertinent to classification, selection, and referral. Searches files of job orders from employers and matches applicant's qualifications with job requirements and employer specifications, utilizing manual file search, computer matching services, or employment service facilities. Informs applicant about job duties and responsibilities, pay and benefits, hours and working conditions, company and union policies, promotional opportunities, and other related information. Refers selected applicant to interview with person placing job order according to policy of school, agency, or company. Keeps for future reference records of applicants not immediately selected or hired. May perform reference and background checks. May refer applicant to vocational counseling services. May test or arrange for skills, intelligence, or psychological testing of applicant. May engage in research or follow-up activities to evaluate selection and placement techniques, by conferring with management and supervisory personnel. May specialize in interviewing and referring certain types of personnel, such as professional, technical, managerial, clerical, and other types of skilled or unskilled workers. May be known as PERSONNEL RECRUITER (profess. & kin.) and seek out potential applicants and try to interest them in applying for position openings.

ENCODER (see TRANSIT CLERK)

ENGINE REPAIRER SERVICE (see SMALL-ENGINE MECHANIC)

FARMER, CASH GRAIN (agric.) cash grain grower; 401.161-010
grain farmer

Plants, cultivates, and harvests one or more grain crops, such as barley, corn, rice, soybeans, and wheat, for cash sale: Selects and buys type and amount of seed to be grown, taking into consideration local growing conditions and market demands. Operates equipment to plow, disk, harrow, and fertilize ground and to plant grain. Plans harvesting, considering ripeness and maturity of grain and weather conditions and operates grain-harvesting equipment. Sells grain or stores grain for future sale. Directs activities of workers. Hires and discharges workers. May be designated according to specific grain grown as CORN GROWER (agric.); RICE FARMER (agric.); SOYBEAN GROWER (agric.); WHEAT GROWER (agric.).

FARMWORKER, GRAIN (agric.) II 401.687-010

Performs variety of manual tasks appropriate for grain crop being cultivated and harvested: Cultivates and thins crops, using hoe. Removes undesirable and excess growth, such as tassels, suckers, and weeds, by hand. Carries supplies, such as bags and baling wires, to workers in fields. Clears irrigation ditches, using shovel. Loads and unloads trucks. Repairs fences and buildings, using carpenter's handtools. Cleans and lubricates farm machines. May be identified with task being performed, such as hoeing, detasseling, and picking; or with crop being worked, such as hybrid seed-corn, field beans and peas, and wheat.

FILE CLERK (clerical) I 206.362-010

Files correspondence, cards, invoices, receipts, and other records in alphabetical or numerical order, or according to subject matter, phonetic spelling, or other system: Reads incoming material and sorts according to file system. Places material in file cabinet, drawers, boxes, or in special filing cases. Locates and removes material from files when requested. Keeps records of material removed, stamps material received, traces missing file folders, and types indexing information on folders. May enter data on records. May be designated according to subject matter filed as CHANGE-OF-ADDRESS CLERK (clerical); SUBSCRIPTION CLERK (clerical); or according to material filed as ADDRESSOGRAPH-PLATE-FILE CLERK (clerical); FILE CLERK, CORRESPONDENCE (clerical); FILE CLERK, DRAWINGS (clerical); FILE CLERK, STENCILS (clerical). May file according to phonetic spelling and be designated FILE CLERK, SOUNDEX SYSTEM (clerical).

FILM CUTTER (photofinish) print cutter 976.685-010

Tends automatic or semi-automatic machines that cut processed film or prints into single or multiple units: Examines film or print roll to determine size, number of cuts required, and type machine to use. Turns setscrews to adjust machine guides to roll width and sets density meter on automatic machine to coincide with sensitized marks on roll that control release of cutting blade. Threads roll through machine guides and starts machine that automatically cuts roll into individual or multiple units or depresses pedal of semi-automatic machine to cut roll. Cuts rolls of non-standard width, using scissors or hand-operated paper cutter. Inserts units in customer envelope. Keeps production records.

FILM CUTTER AND SPLICER (see FILM CUTTER)

FILM SPLICER (see SPLICER)

FOOD ASSEMBLER, KITCHEN (hotel & rest.; medical ser.) 319.484-010
dining-service worker; food assembler, commissary
kitchen; food-tray assembler; supply service worker;
tray setter.

Prepares meal trays in commissary kitchen for inflight service of airlines, multiunit restaurant chains, industrial caterers, or educational, hospital, and similar institutions, performing any combination of following duties: Reads charts to determine amount and kind of foods and supplies to be packaged. Fills individual serving cartons with portions of various foods and condiments, such as cream, jams, and sauces, by hand or using automatic filling machine. Portions and garnishes hot cooked foods, such as meat and vegetables, into individual serving dishes. Stores dishes of hot food on shelves of portable electric warming cabinet or food cart for stowing aboard airplane or transfer to restaurant or cafeteria dining unit. Removes pans of portioned salads, desserts, rolls, cream, and other cold food items from refrigerator or pantry, and places at appropriate stations of tray assembly counter to facilitate loading meal trays. Places food items, silverware, and dishes in depression of compartmented food tray passing on conveyor belt. Examines filled tray for completeness and appearance, and stores completed trays in refrigerated storage cabinets to be transported to airplane, dining room, or cafeteria. May be designated according to type of food assembled as APPETIZER PACKER (hotel & rest.); CASSEROLE PREPARER (hotel & rest.); COLD-FOOD PACKER (hotel & rest.); HOT-FOOD PACKER (hotel & rest.).

FOOD ORDER EXPEDITER (hotel & rest.) 319.467-010

Calls out and verifies food orders in a drive-in restaurant or restaurant specializing in fast service: Removes order placed on device, such as wheel or nail board at kitchen service counter. Calls out food orders to cooks and pantry and fountain workers. Examines portioning and garnishing of completed food order. Reviews order for accuracy and tabulates check. Notifies serving personnel when order is ready. May record count of items, such as entrees drawn from supply or entrees served to accumulate food control data. May prepare and cook foods that can be completed in short time (COOK, SHORT ORDER, hotel & rest.).

FOOD-SERVICE SUPERVISOR (hotel & rest.; medical ser.) 319.137-010

Supervises employees engaged in serving food in hospital, nursing home, school, or college food service department and similar institutions, and in maintaining cleanliness of food service areas and equipment: Gives training to workers in methods of performing duties and assigns and coordinates work of employees to promote efficiency of operations. Supervises serving of meals in dining room. Oversees cleaning of kitchen and dining areas and washing of kitchen utensils and equipment, according to sanitary methods. Keeps records, such as amount and cost of meals served and hours worked by employees. Requisitions supplies and equipment to maintain stock levels. May direct preparation of foods and beverages. May assist DIETITIAN, CLINICAL (profess. & kin.) in planning menus. May interview and select new employees. May supervise FOOD-SERVICE WORKER, HOSPITAL (medical ser.) and be designated as TRAY-LINE SUPERVISOR (medical ser.).

FOOD-SERVICE WORKER, HOSPITAL (medical ser.) 355.677-010
dietary aide; diet-kitchen aide; tray worker

Prepares and delivers food trays to hospital patients, performing any combination of following duties on tray line: Reads production orders on color-coded menu cards on trays to determine appropriate items to place on tray. Places items such as silver, fruit juice, sugar, cream, milk and butter on trays. Fills vacuum bottles with coffee and apportions food servings according to diet list on menu card. Places servings in blender to make foods for soft or liquid diets. Examines filled tray for completeness and places on cart or dumbwaiter. Pushes carts to halls or ward kitchens. Serves trays to patients. Collects and places garbage and trash in designated containers. May record amounts and types of special food items served to patients. May be designated according to type of food trays prepared as NOURISHMENT WORKER (medical ser.); SPECIAL-DIET WORKER (medical ser.); or duty on tray line as TRAY-LINE WORKER (medical ser.).

FORGING-PRESS OPERATOR (forging) II 611.685-010
press hand; press operator

Tends closed-die power press that produces metal forgings: Pulls workpiece from furnace, when color of workpiece indicates forging temperature, and positions it on lower die, using tongs. Moves controls to lower ram that compresses metal to shape of die impressions. May move workpiece through series of dies for progressively finer detail. May tend press to emboss designs on metal or compress and smooth surface of metal blanks or rough forgings and be designated COINING-PRESS OPERATOR (forging). May tend press that twists forging to form journals and counterweights on crankshafts to specified degree of eccentricity and be designated TWISTING-PRESS OPERATOR (forging).

FORGING-PRESS OPERATOR (forging) I die-machine operator; forging-machine operator 611.482-010

Sets up and operates closed-die power press to produce metal forgings, following work order specifications, using measuring instruments and handtools: Alines and bolts specified dies on ram and anvil of press, using rule, square, shims, feelers, and handtools. Turns knobs to set pressure and depth of ram stroke. Pulls workpiece from furnace, when color of workpiece indicates forging temperature, and positions workpiece on lower die, using tongs. Depresses treadle or pulls lever to lower ram that compresses metal to shape of die impressions. May move workpiece through series of dies for progressively finer detail.

FORK LIFT OPERATOR (see INDUSTRIAL TRUCK OPERATOR)

FRONT-END MECHANIC (auto. ser.) alinement mechanic; axle-and-frame mechanic; chassis mechanic; wheel-alinement mechanic 620.281-038

Alines wheels, axles, frames, torsion bars, and steering mechanisms of automotive vehicles such as automobiles, buses, and trucks: Drives automotive vehicle onto wheel alinement rack and tests vehicle for faulty wheel alinement, bent axle, worn ball joints, and bent steering rods, using alinement-testing machine. Straightens axle and steering rods and adjusts shims, tie rods, and joining pins to aline wheels, or installs new parts, using handtools. Places wheel on balancing machine to determine where counterweights must be added to balance wheel. Hammers counterweights onto rim of wheel. Installs shock absorbers. Straightens frame, using hydraulic jack, chassis aliner, and acetylene torch.

GAS-METER INSTALLER (light, heat, & power) gas fitter; meter installer 953.364-010

Installs residential-type gas meters and regulators in buildings, using handtools: Turns valve to adjust gas burners on appliances, using screwdriver. Inspects appliances to detect gas leaks, using portable testing device, and notifies customer of needed repair. Shuts off gas supply to installed meters, following instructions (CUSTOMER SERVICE REPRESENTATIVE; light, heat, & power; tel & tel.; waterworks). Removes meters from vacated or abandoned buildings. Prepares work orders indicating data, such as meter number, date, and location of installation.

GAS REGULATOR REPAIRER (light, heat, & power; petrol. regin.; pipe lines) 710.381-026

Tests, repairs, and adjusts regulators (gas governors), relief valves, and related equipment used to control gas pressure in city gas mains and service pipes, pipelines, in-plant gas systems, and petroleum refineries: Dismantles regulator and examines such parts as springs, valves, and diaphragm for wear or deterioration. Cleans corrosion and tar deposits from serviceable parts, using solvents and wire brush. Cuts seat to receive new orifice, taps inspection ports, and performs other repairs to salvage useable materials, using handtools and machine tools. Reassembles regulator with new and reconditioned parts, according to blueprints. Connects regulator to test stand and turns screw adjustment until test-stand gages indicate regulator inlet and outlet pressures are according to specifications for regulator and type of service. Tests and adjusts pressure setting of relief valves in similar manner. Records work done, pressure adjustment, and related data for each instrument. May install regulators, and such related equipment as gasmeters, odorization units, and gas-pressure-telemetering equipment.

GREENSKEEPER (any ind.) II laborer, golf course 406.683-010

Performs any combination of the following duties, as directed by GREENSKEEPER (any ind.) I, to maintain grounds and turf of golf course in playing condition: Operates tractor, using specific attachments, to till, cultivate, and grade new turf areas, to apply prescribed amounts of lime, fertilizer, insecticide, and fungicide, and to mow rough and fairway areas at designated cut, exercising care not to injure turf or shrubs. Cuts turf on green and tee areas, using hand mower and power mower. Connects hose and sprinkler systems at designated points on course to irrigate turf. Digs and rakes ground to prepare new greens, grades and cleans traps, and repairs roadbeds, using shovels, rakes, spades, and other tools. May plant, trim, and spray trees and shrubs.

GRINDER (any ind.) I 705.684-026

Grinds and smooths surfaces of items, such as automobile or appliance components, prior to finishing operations, using powered portable wheel, disk, or belt grinder: Examines and feels surface of workpiece for defects. Selects grade of abrasive belt, wheel, or disk according to specifications, knowledge of abrasives, and condition of metal, and attaches to grinder.

HIGHWAY-MAINTENANCE WORKER (gov. ser.) 899.684-014
highway worker

Maintains highways, municipal and rural roads, and rights-of-way in safe condition, performing combination of following duties: Erects and repairs guardrails, highway markers, and snow fences, using handtools and nails, and power tools. Dumps, spreads, and tamps asphalt, using pneumatic tamper to patch broken or eroded pavement. Drives truck (TRUCK DRIVER, HEAVY, any ind.) to transport crew and equipment to worksite. May drive snow-removal equipment, consisting of truck or tractor equipped with adjustable snowplow and blower unit and be designated SNOW-PLOW OPERATOR, TRUCK (gov. ser.) or SNOW-PLOW TRACTOR OPERATOR (gov. ser.). May drive tractor with mower attachment to cut grass around airfield runways.

HOUSE-PIPING INSPECTOR (light, heat, & power) 953.367-018

Inspects and tests new gas-pipe installations in buildings to determine conformance to company and city requirements: Screws coupling into gasline to facilitate attachment of handpump testing set. Pumps air and reads gage to determine specified amount of air pumped into gasline. Patches gage to detect fall in pressure indicating leaks in gasline. Observes pressure gage while joints are being tightened by coworkers to determine when leak has been detected and repaired. Tests joints with soap and water and observes bubble formation to detect leaks. Examines flue openings of gas-heating appliances to determine conformance to specifications. Notifies customer of needed repairs. Prepares inspection report. May inspect installations, such as gas mains, services (pipes from mains to residences), meters, and regulators and be designated as UTILITY INSPECTOR (light, heat, & power). May test for presence of subsurface gas to detect leaks in underground gaspipes (GAS-LEAK INSPECTOR; light, heat, & power; pipe lines).

HOUSEKEEPER, MEDICAL SERVICES (see CLEANER, HOSPITAL)

HOUSEPARENT (see ATTENDANT, CHILDREN'S INSTITUTION)

INDUSTRIAL-TRUCK OPERATOR (any ind.) 921.683-050

Drives gasoline-, liquified gas-, or electric-powered industrial truck equipped with lifting devices, such as forklift, boom, scoop, lift beam and swivel-hook, fork-grapple, clamps, elevating platform, or trailer hitch, to push, pull, lift, stack, tier, or move products, equipment, or materials in warehouse, storage yard, or factory: Moves levers and presses pedals to drive truck and control movement of lifting apparatus. Positions forks, lifting platform, or other lifting device under, over, or around loaded pallets, skids, boxes, products, or materials or hooks tow trucks to trailer hitch, and transports load to designated area. Unloads and stacks material by raising and lowering lifting device. May inventory materials on work floor, and supply workers with materials as needed. May weigh materials on work floor, and supply workers with materials as needed. May weigh materials or products and record weight on tags, labels, or production schedules. May load or unload materials onto or off pallets, skids, or lifting device. May lubricate truck, recharge batteries, fill fuel tank, or replace liquified-gas tank. May be designated according to article moved as LEAD LOADER (ore dress., smelt., & refin.); process in which involved as STRIPPER TRUCK OPERATOR (ore dress., smelt., & refin.); or type of truck operated as ELECTRIC-TRUCK-CRANE (any ind.); FORK-LIFT-TRUCK OPERATOR (any ind.); TIER-LIFT-TRUCK OPERATOR (any ind.). Additional titles: BURNT-LIME DRAWER (lime); CASTING TRUCKER (found.); ELECTRIC-FREIGHT-CAR OPERATOR (r.r. trans.); ELECTRIC-TRUCK OPERATOR (any ind.); GASOLINE-TRUCK OPERATOR (any ind.); METAL-STORAGE WORKER (nonfer. metal alloys); PACKAGE-LIFT OPERATOR (any ind.).

INSPECTOR, TOOL (mach. shop) precision inspector; 601.281-022
surface-plate inspector; tool-and-die inspector;
tool-and-gage inspector

Inspects, tests, and adjusts new and reworked tools, dies, gages, jigs, and fixtures, for conformance to specifications, such as dimensions, tolerances, and hardness, utilizing knowledge of tool and die design and testing procedures: Computes angles, radii, and other dimensions not given in specifications, using algebra, geometry, and trigonometry. Positions workpiece on surface plate and lays out center lines and reference points on part (LAY-OUT WORKER, mach. shop). Measures angular dimensions, radii, contours, clearances, thread lead, and other specifications, using precision measuring instruments, such as micrometer, gage blocks, dial indicators, height gages, level protractors, and optical comparators. Tests units for fit of moving parts and mechanical functioning. Tests parts for hardness (HARDNESS INSPECTOR, heat treat). Determines accuracy of gages and measuring instruments and makes adjustments to inaccurate instruments (INSPECTOR, GAGE AND INSTRUMENT, mach. shop). Analyzes defective parts to determine cause of defect and recommends correction. Prepares report listing defects and other inspection data. May draw enlarged part details for use on optical comparator. May determine salvability of defective items, utilizing knowledge of material and machining costs. May use laser equipment measuring instruments. May measure surface finish of part, using profilameter. May inspect parts for flaws or internal fissures, using ultrasonic equipment or fluorescent lights. May inspect first run parts and assemblies. May test gages used in manufacture and assembly of watches, using measuring devices and microscope and be known as GAGE CONTROLLER (clock & watch).

INSULATION INSTALLER (see CONSTRUCTION WORKER I)

INVENTORY CLERK (clerical) 222.387-026

Compiles records of amount, kind, and value of merchandise, material, or stock on hand in establishment or department of establishment: Counts stock, material, or merchandise on hand and posts totals to inventory records. Compares inventories taken by other workers with office records or computes figures from sales, equipment, shipping, production, purchase, or stock records to obtain current theoretical inventory. Verifies clerical computations against physical count of stock and adjusts errors in computation or count, or investigates and reports reasons for discrepancies. Compiles information on receipt or disbursement of goods and computes inventory balance, price, and costs. Prepares reports of inventory balance, prices, and shortages. May list depleted items. May recommend survey of broken or unusable items. May operate typewriter, adding machine, or calculating machine. May be designated according to item inventoried as EQUIPMENT-INVENTORY CLERK (aircraft-aerospace mfg.); PROPERTY-AND-EQUIPMENT CLERK (petrol. refin.) or type of inventory as INVENTORY CLERK, PERPETUAL (clerical); INVENTORY CLERK, PHYSICAL (clerical) or work location as INVENTORY CLERK, STOCKROOM (clerical).

JANITOR (any ind.) maintenance engineer; 382.664-010
superintendent, building

Keeps hotel, office building, apartment house, or similar building in clean and orderly condition and tends furnace, air conditioner, and coiler to provide heat, cool air, and hot water for tenants, performing any combination of following duties: Sweeps and mops or scrubs hallways and stairs. Regulates flow of fuel into automatic furnace or shovels coal into hand-fired furnace. Empties tenants' trash and garbage containers. Maintains building, performing minor and routine painting, using handtools. Replaces air conditioner filters. Cautions tenants regarding complaints about excessive noise, disorderly conduct, or misuse of property. Notifies management concerning need for major repairs or additions to lighting, heating, and ventilating equipment. Cleans snow and debris from sidewalk. Mows lawn, trims shrubbery, and cultivates flowers, using handtools and power tools. Posts signs to advertise vacancies and shows empty apartments to prospective tenants. May reside on property and be designated MANAGER, RESIDENT (any ind.).

JOB SETTER (fabric. plastics prod.; mach. mfg.; 600.380-014
mach. shop) machine adjuster; machine setter;
machinist, tool setter; tool setter

Sets up and adjusts variety of machine tools, such as lathes, milling machines, boring machines, drill and punch presses, grinders, gear hobbers, and plastic molding machines for other workers, such as PRODUCTION-MACHINE TENDERS (mach. shop), according to specifications and tooling instructions, applying knowledge of machining methods: Reads blueprint or job order for product specifications, such as dimensions and tolerances, and tooling instructions, such as feed rate, cutting speed, depth of cut, fixture, and cutting tools to be used. Installs and adjusts holding device and fastens specified cutting and shaping tools in position to enable operator to produce finished workpiece to specifications, using handtools, such as wrenches, screwdrivers, and pliers. Selects and sets speed and feed of machine according to type of operation and specified material and finish. Starts machine to obtain first-run workpiece and verifies dimensional tolerances, using micrometers, gages, and templates. Changes worn cutting tools and adjusts operation of machine, such as cutting speed, feed rate, or depth of cut, when required. May instruct operator on correct operation of machine and setup, or may instruct new workers in machine operation. May set up machines and equipment other than machine tools, such as welding machine and flame-cutting equipment. May set up and adjust special industry machinery primarily, or machines adapted to special industry use and be designated accordingly as HEDDLE-MACHINE FIXER (mach. shop); MACHINE SETTER, PLASTICS (mach. shop).

KETTLE MAN (see KETTLE TENDER)

KETTLE TENDER (build. mat., n.e.c.) burner; dope 869.685-010
firer; dope heater; furnace tender; heater worker

Tends portable kettle that heats tar, asphalt, lead, or sealing compound for use as protective coating for pipelines, roofs, and pavement: Cuts asphalt, tar, or other corrosion-resistant compound into pieces with ax and places pieces in kettle. Maintains fire under kettle to bring materials to required temperature, judging heat from appearance of materials and gages on kettle. May remove adhering asphalt from rakes or tamping irons by heating them or by use of fuel oil. May be designated according to material heated as LEADLITE HEATER (const.); TAR HEATER (const.)

KEYPUNCH OPERATOR (clerical) card-punch operator; printing-card-punch operator; printing-punch operator 203.582-030

Operates alphabetic and numeric keypunch machine, similar in operation to electric typewriter to transcribe data from source material onto punchcards, paper or magnetic tape, or magnetic cards, and to record accounting or statistical data for subsequent processing by automatic or electronic data processing equipment: Attaches skip bar to machine and previously punched program card around machine drum to control duplication and spacing of constant data. Loads machine with decks of tabulating punchcards, paper or magnetic tape, or magnetic cards. Moves switches and depresses keys to select automatic or manual duplication and spacing, select alphabetic or numeric punching, and transfer cards or tape through machine stations. Depresses keys to transcribe new data in prescribed sequence from source material into perforations on card, or as magnetic impulses on specified locations on tape or card. Inserts previously processed card into card gage to verify registration of punches. Observes machine to detect faulty feeding, positioning, ejecting, duplicating, skipping, punching, or other mechanical malfunctions and notifies supervisor. Removes jammed cards, using prying knife. May tend machines that automatically sort, merge, or match punchcards into specified groups. May verify accuracy of data, using verifying machine (VERIFIER OPERATOR, clerical). May perform general typing tasks (TYPIST, clerical). May keypunch numerical data only and be designated KEYPUNCH OPERATOR, NUMERIC (clerical).

KITCHEN HELPER (hotel & rest.) cookee; cook helper; kitchen hand; kitchen porter; kitchen runner 318.687-010

Performs any combination of the following duties to maintain kitchen work areas and restaurant equipment and utensils in clean and orderly condition: Sweeps and mops floors. Washes worktables, walls, refrigerators, and meat blocks. Segregates and removes trash and garbage and places it in designated containers. Steam-cleans or hoses-out garbage cans. Sorts bottles, and breaks disposable ones in bottle-crushing machine. Washes pots, pans, and trays by hand. Scrapes food from dirty dishes and washes them by hand or places them in racks or on conveyor to dishwashing machine. Polishes silver, using burnishing-machine tumbler, chemical dip, buffing wheel, and hand cloth. Holds inverted glasses over revolving brushes to clean inside surfaces. Transfers supplies and equipment between storage and work areas by hand or by use of handtruck. Sets up banquet tables. Washes and peels

vegetables, using knife or peeling machine. May be known according to task performed as DISHWASHER, HAND (hotel & rest.); DISHWASHER MACHINE (hotel & rest.); GARBAGE PORTER (hotel & rest.); POT-WASHER (hotel & rest.); SILVERWARE WASHER (hotel & rest.).

LAB ASSISTANT, MEDICAL (see MEDICAL-LABORATORY ASSISTANT)

LAB TECHNICIAN, MEDICAL (see MEDICAL-LABORATORY TECHNICIAN)

LABORER, GENERAL (mach. shop) 609.684-014

Performs any combination of following tasks to assist in machine shop activities: Loads and unloads materials, parts, or products onto or from pallets, skids, conveyors, or trucks manually or using hoist. Delivers metal parts or stock to designated work areas for machining, using electric pallet mover, hoist, or overhead crane. Lifts metal part or stock onto machine, manually or using hoist, and secures it on machine table, in chuck, or holding fixture, using wrenches, to assist in setting up machine. Feeds metal parts or stock into automatic metal working machines and removes machined part from machine after prescribed period of time or at end of machining cycle. Adds coolant to reservoirs of machines and lubricates machine parts and ways, using grease gun and oil-can. Reclaims cutting and lubricating oils from machines by pumping oil from machine reservoir into barrel, dumping oil from barrel into centrifugal separator that removes metal chips and dirt from oil, and drains clean oil from separator into containers. Removes metal chips and shavings from surfaces of machines, using rag or airhose, and wipes surfaces of machines with rag to remove excess oil. Cleans around work areas, using broom and shovel. Separates metal shavings, chips, and scrap materials from trash and places them in bins for resale. May remove burs or excess metal from machined parts, using files, sandpaper, emory cloth, or grinding machine. May be designated by specific task performed as BRASS RECLAIMER (mach. shop); GEAR CLEANER (mach. shop); OIL EXTRACTOR (mach. shop); SORTER (mach. shop); THREADING-MACHINE FEEDER, AUTOMATIC (mach. shop) II; TOOL MARKER (mach. shop).

LABORER, GENERAL (plastics mat.) 559.567-010

Performs any combination of following tasks involved in manufacturing plastics materials, synthetic resins, and synthetic rubber: Transports materials to workers and machines, using hoist or handtruck. Inserts metal core in rolls of plastics film. Tightens clamps on supply racks, using wrenches. Cleans machinery and work area, using vacuum cleaner, brushes, and cleaning solvents. Measures out, weighs, and dumps ingredients into mills, kettles, or hoppers. Replaces spools or coils of materials on supply racks or reels. Delivers samples of materials to testing laboratory. Records weights, types, and amounts of materials used, stored, or shipped.

LABORER, GOLF COURSE (see GREENSKEEPER)

LABORER, LAUNDRY (see LAUNDRY LABORER)

LABORER, MACHINE SHOP (see LABORER, GENERAL, mach. shop)

LABORER, MUSEUM (see CLEANER, COMMERCIAL OR INSTITUTIONAL)

LABORER, ROAD (see HIGHWAY-MAINTENANCE WORKER)

LABORER, STORES (any ind.) order picker; parts picker; stock selector; warehouse worker 922.687-058

Performs any combination of following tasks to receive, store, and distribute material, tools, equipment, and products within establishments: Reads production schedule, customer order, work order, shipping order or requisition to determine items to be moved, gathered, or distributed. Conveys materials and items from receiving or production areas to storage or to other designated areas by hand, handtruck, or electric handtruck. Sorts and places materials or items on racks, shelves, or in bins according to predetermined sequence, such as size, type, style, color, or product code. Sorts and stores perishable goods in refrigerated rooms. Fills requisitions, work orders, or requests for materials, tools, or other stock items and distributes items to production workers or assembly line. Assembles customer orders from stock and places orders on pallets or shelves, or conveys orders to packing station or shipping department. Marks materials with identifying information, using stencil, crayon, or other marking device. Opens bales, crates, and other containers, using handtools. Records amounts of materials or items received or distributed. Weighs or counts items for distribution within plant to insure conformance to company standards. Arranges stock parts in specified sequence for assembly by other workers. May prepare parcels for mailing. May maintain inventory records. May restock aircraft commissary supplies, such as linens, glasses, emergency kits, and beverages and be designated COMMISSARY AGENT (air trans.). May be known according to specific duty performed as CLOTH-BIN PACKER (textile); COOLER WORKER (dairy prod.); ORDER FILLER (any ind.); PRODUCE CLERK (ret. tr.) II; TOOL CHASER (any ind.).

LAUNDRY LABORER (laund.) bundle clerk 361.687-018

Prepares laundry for processing and distributes laundry, performing any combination of the following duties: Opens bundles of soiled laundry. Places bundles onto conveyor belt or drops down chute for distribution to marking and classification sections. Weighs laundry on scales and records weight on tickets. Removes bundles from conveyor and distributes to workers, using handtruck. Fastens identification pins or clips onto laundry to facilitate subsequent assembly of customers orders. Sorts net bags containing clean wash according to customers' identification tags. Sorts empty net bags according to color and size. Collects identification tags from lots of laundered articles for reuse. Moistens clean wash preparatory to ironing. Operates power hoist to load and unload washing machines and extractors. Stacks linen supplies on storage room shelves. Unloads soiled linen from trucks. May be designated according to duty performed as BUNDLE WEIGHER (laund.); CHUTE WORKER (laund.); CLIPPER (laund.); LINEN-SUPPLY-ROOM WORKER (laund.); NET SORTER (laund.). Additional titles: PIN SORTER AND BAGGER (laund.); PIN WORKER (laund.); WASHING-MACHINE LOADER (laund.) II.

LIBRARY ASSISTANT (library) book-loan clerk; circulation clerk; desk attendant; library attendant; library clerk; library helper 249.367-046

Compiles records, sorts and shelves books, and issues and receives library materials, such as books, films, and phonograph records: Records identifying data and due date on cards by hand or using photographic equipment to issue books to patrons. Inspects returned books for damage, verifies due-date, and computes and receives overdue fines. Reviews records to compile list of overdue books and issues overdue notices to borrowers. Sorts books, publications, and other items according to classification code and returns them to shelves, files, or other designated storage area. Locates books and publications for patrons. Issues borrower's identification card according to established procedures. Files cards in catalog drawers according to system. Repairs books, using mending tape and paste and brush. Answers inquiries of nonprofessional nature on telephone and in person and refers persons requiring professional assistance to LIBRARIAN (library). May type material cards or issue cards and duty schedules. May be designated according to type of library as BOOKMOBILE CLERK (library); BRANCH-LIBRARY CLERK (library); or according to assigned department as LIBRARY CLERK, ART DEPARTMENT (library).

LIBRARY CLERK III (see LIBRARY ASSISTANT)

LOCKSMITH (any ind.) lock expert 709.281-010

Repairs and opens locks, makes keys, and changes lock combinations, using handtools and special equipment: Disassembles locks, such as padlocks, safe locks, and door locks, and repairs or replaces worn tumblers, springs, and other parts. Shortens tumblers, using file, and inserts new or repaired tumblers into lock to change combination. Cuts new or duplicate keys, using keycutting machine. Moves lockpick in cylinder to open door locks without keys. Opens safe locks by listening to lock sounds or by drilling. May keep records of company locks and keys.

MAIL CLERK (clerical) mailroom clerk; mail sorter; postal clerk 209.587-026

Sorts incoming mail for distribution and dispatches outgoing mail: Opens envelopes by hand or machine. Stamps date and time of receipt on incoming mail. Sorts mail according to destination and type, such as returned letters, adjustments, bills, orders, and payments. Readdresses undeliverable mail bearing incomplete or incorrect address. Examines outgoing mail for appearance and seals envelopes by hand or machine. Stamps outgoing mail by hand or with postage meter. May fold letters or circulars and insert into envelopes (FOLDING-MACHINE OPERATOR, clerical). May distribute and collect mail. May weigh mail to determine that postage is correct. May keep record of registered mail. May address mail, using addressing machine (ADDRESSING-MACHINE OPERATOR, clerical). May be designated according to type of mail handled as MAIL CLERK, BILLS (clerical).

MAINTENANCE MACHINIST (any ind.) machine repairer; shop mechanic; machinist 600.280-042

Sets up and operates variety of machine tools, and fits and assembles parts to fabricate or repair machine tools and maintain industrial machines, applying knowledge of mechanics, shop mathematics, metal properties, layout, and machining procedures: Observes and listens to operating machines or equipment to diagnose malfunction and determine need for adjustment or repair. Studies blueprint, sketch, machine part, or specifications to determine type and dimensions of metal stock required. Measures, marks, and scribes dimensions and reference points on metal stock surfaces, using such measuring and marking devices as calibrated ruler, micrometer, caliper, and scriber (LAY-OUT WORKER, mach. shop). Dismantles machine or equipment, using handtools, such as wrench and screwdriver, to examine parts for defect or to remove defective part. Substitutes new part or repairs or reproduces part from various kinds of metal stock, using handtools, such as scraper, file, and drill, and machine tools, such as lathe, milling machine, shaper, borer, and grinder (MACHINIST, mach. shop). Assembles and starts machine to verify correction of malfunction. Maintains and lubricates machine tools and equipment, using handtools, ladder, and lubricants. May weld broken structural parts, using arc or gas welding equipment. May repair or replace faulty wiring, switches, or relays. May be designated according to type of equipment repaired as MACHINIST, CONSTRUCTION EQUIPMENT (any ind.).

MAINTENANCE MECHANIC (any ind.) fixer; machine-maintenance servicer; machine overhauler; machine repairer; mechanical adjuster; repair mechanic; tool-and-machine maintainer 638.281-014

Repairs and maintains, in accordance with diagrams, sketches, operation manuals, and manufacturer's specifications, machinery and mechanical equipment, such as engines, motors, pneumatic tools, conveyor systems, and production machines and equipment, using hand-tools, power tools, and precision-measuring and testing instruments: Observes mechanical devices in operation and listens to their sounds to locate causes of trouble. Dismantles devices to gain access to and remove defective parts, using hoists, cranes, handtools, and power tools. Examines form and texture of parts to detect imperfections. Inspects rules, calipers, micrometers, and other measuring instruments. Adjusts functional parts of devices and control instruments, using handtools, levels, plumb bobs, and straightedges. Repairs or replaces defective structural parts in devices, using handtools. Starts devices to test their performance. Lubricates and cleans parts. May set up and operate lathe, drill press, grinder, and other metalworking tools to make and repair parts. May initiate purchase order for parts and machines. May repair electrical equipment. May be designated according to machine repaired, as CARTON-FORMING-MACHINE ADJUSTER (any ind.); MACHINE ADJUSTER (tobacco); MAINTENANCE MECHANIC, RECORD PROCESSING EQUIPMENT (phonograph).

MAINTENANCE SUPERVISOR (any ind.) building-and-grounds supervisor; building-maintenance supervisor, mechanical; building supervisor; group supervisor, maintenance 891.137-010

Supervises and coordinates activities of workers engaged in keeping buildings and grounds in clean and orderly condition and in maintaining and repairing utility systems and physical structures of building: Directs workers engaged in mowing lawns, trimming hedges, and raking and burning leaves and refuse. Directs workers engaged in painting and making structural repairs to masonry, woodwork, and furnishings of buildings and similar structures.

Directs workers engaged in maintaining and repairing building utility systems, such as electric wiring and controls, heating, ventilating and steam generating systems (UTILITIES-AND-MAINTENANCE SUPERVISOR, any ind.). Directs workers engaged in maintaining and repairing plumbing systems (PLUMBER SUPERVISOR, MAINTENANCE, const.). Compiles reports of cost of completed work. Requisitions tools, equipment, and supplies. Inspects completed work for conformance to blueprints and other specifications. Performs other duties as described under SUPERVISOR (any ind.). May supervise workers engaged in installing, servicing, and repairing mechanical equipment.

MANAGER, ADVERTISING AGENCY (bus. ser.) 164.117-014

Directs activities of an advertising agency: Formulates plans to extend business with established accounts and to solicit new accounts. Coordinates activities of departments, such as sales, graphic arts, media, and research. Inspects layouts and advertising copy, and edits radio and television scripts for adherence to predetermined plans. Conducts meetings with department supervisors to outline and initiate new advertising policies or procedures. May confer with clients to provide marketing or technical advice.

MANAGER, BULK PLANT (petrol. refin.; ret. tr.) 181.117-010
field operating superintendent; terminal superintendent

Manages plant in which gasoline, lubricants, and petroleum fuels are stored and distributed in bulk lots, formulating policies in regard to storage, distribution, and other operating problems: Determines type and quantities of products according to consumer demand. Contacts refineries and petroleum canning plants to schedule shipment of products. Establishes operating procedures for incoming shipments, indicating storage tanks and warehouse facilities to be used. Formulates policies for distribution and sale of products to wholesale and retail outlets and consumers.

MANAGER, CREDIT AND COLLECTION (any ind.) 168.167-054

Directs and coordinates activities of workers engaged in conducting credit investigations and collecting delinquent accounts of customers of commercial establishment, department store, bank, or similar establishment: Assigns subordinates to supervise workers investigating and verifying financial status and reputation of prospective customers applying for credit, preparing documents to substantiate findings, and recommending rejection or approval of applications. Reviews and evaluates applications, substantiated data, and recommendations, in order to determine credit validity. Establishes credit limitations on customer's account. Assigns responsibility for collecting on worthless checks and delinquent bills to specific supervisors. Reviews collection reports to ascertain status of collections and balances outstanding and to evaluate effectiveness of current collection policies and procedures. May also submit delinquent accounts to attorney or outside agency for collection.

MANAGER, DEPARTMENT (ret. tr.) department supervisor; manager, floor 299.137-010

Supervises and coordinates activities of workers in one department of retail store: Assigns duties to workers and schedules lunch and break periods, work hours, and vacations. Trains workers in store policies, department procedures, and job duties. Assists sales workers in completing difficult sales. Evaluates worker performance and recommends retention, transfer, or dismissal of worker. Listens to customer complaints, examines returned merchandise, and attempts to resolve problem and restore and promote good public relations. Orders merchandise, supplies, and equipment, as necessary. Insures that merchandise is correctly priced and displayed. Prepares sales and inventory reports. May approve checks for payment of merchandise and issue credit or cash refund on returned merchandise. May suggest purchase of merchandise for department. May plan department layout or merchandise or advertising display (DISPLAYER, MERCHANDISE, ret. tr.). May install and remove department cash-register-receipt tape and audit cash receipts. May be designated according to department managed or type of merchandise sold as CANDY-DEPARTMENT MANAGER (ret. tr.); TOY-DEPARTMENT MANAGER (ret. tr.); PRODUCE-DEPARTMENT MANAGER (ret. tr.).

MANAGER, FAST FOOD SERVICES (ret. tr.; whole. tr.) 185.137-010

Manages franchised or independent fast food or wholesale prepared food establishment: Directs, coordinates, and participates in preparation of, and cooking, wrapping or packing types of food served or prepared by establishment, collecting of monies from in-house or take-out customers, or assemblying food orders for wholesale customers. Coordinates activities of workers engaged in keeping business records, collecting and paying accounts, ordering or purchasing supplies, and delivery of foodstuffs to wholesale or retail customers. Interviews, hires, and trains personnel. May contact prospective wholesale customers, such as mobile food vendors, vending machine operators, bar and tavern owners, and institutional personnel, to promote sale of prepared foods, such as doughnuts, sandwiches, and specialty food items. May establish delivery routes and schedules for supplying wholesale customers. Workers are usually classified according to type or name of franchised establishment or type of prepared foodstuff retailed or wholesaled.

MANAGER, RETAIL STORE (ret. tr.) 185.167-046

Manages retail store engaged in selling specific line of merchandise, as groceries, meat, liquor, apparel, jewelry, or furniture; related

lines of merchandise, as radios, televisions, and household appliances; or general line of merchandise, performing following duties personally or supervising employees performing duties: Plans and prepares work schedules and assigns employees to specific duties. Formulates pricing policies on merchandise according to requirements for profitability of store operations. Coordinates sales promotion activities and prepares, or directs workers preparing, merchandise displays and advertising copy. Supervises employees engaged in, or performs, sales work, taking of inventories, reconciling cash with sales receipts, keeping operating records, or preparing daily record of transactions for ACCOUNTANT (profess. & kin.). Orders merchandise or prepares requisitions to replenish merchandise on hand. Insures compliance of employees with established security, sales, and record keeping procedures and practices. Workers managing retail stores are classified according to specific line of merchandise sold, as women's apparel or furniture; related lines of merchandise, as camera and photographic supplies, or gift, novelties, and souvenirs; type of business, as mail order establishment or auto supply house; or general line of merchandise carried, as sporting goods, drugs and sundries, or variety store.

MANAGER, SALES (see MANAGER, DEPARTMENT)

MARKER (ret. tr.; whole. tr.) marking clerk; merchandise marker; price marker; ticket maker 209.587-034

Marks and attaches price tickets to articles of merchandise to record price and identifying information: Marks selling price by hand on boxes containing merchandise, or on price tickets. Ties, glues, sews, or staples price ticket to each article. Presses lever or plunger of mechanism that pins, pastes, ties, or staples ticket to article. May record number and types of articles marked and pack them in boxes. May compare printed price tickets with entries on purchase order to verify accuracy and notify supervisor of discrepancies. If worker prints information on tickets, using ticket-printing machine, see TICKETER (any ind.) or TICKET PRINTER AND TAGGER (garment).

MARKET-RESEARCH ANALYST (profess. & kin.) I 050.067-014

Researches market conditions in local, regional, or national area to determine potential sales of product or service: Establishes research methodology and designs format for data gathering, such as surveys, opinion polls, or questionnaires. Examines and analyzes statistical data to forecast future marketing trends. Gathers data on competitors and analyzes prices, sales, and methods of marketing and distribution. Collects data on customer preferences and buying habits. Prepares reports and graphic illustrations of findings.

MATERIAL HANDLER (any ind.) distributor; floor worker; line supply; loader and unloader; servicer; stacker; utility worker 929.687-030

Loads, unloads, and moves materials within or near plant, yard, or worksite, performing any combination of the following duties: Reads work order or follows oral instructions to ascertain materials or containers to be moved. Opens containers, using steel cutters, crowbar, clawhammer, or other handtools. Loads and unloads materials onto or from pallets, trays, racks, and shelves by hand. Loads materials into vehicles and installs strapping, bracing, or padding to prevent shifting or damage in transit, using handtools. Conveys materials to or from storage or worksites to designated area, using handtruck, electric dolly, wheelbarrow, or other device. Secures lifting attachments to materials and conveys load to destination, using hand-operated crane or hoist, or signals crane or hoisting operators to move load to destination (LABORER, HOISTING, any ind.). Counts, weighs, and records number of units of materials moved or handled on daily production sheet. Attaches identifying tags or labels to materials or marks information on cases, bales, or other containers. Loads truck for INDUSTRIAL-TRUCK OPERATOR (any ind.). Stacks or assembles materials into bundles and bands bundles together, using banding machine and clincher. Clamps sections of portable conveyor together or places conveyor sections on blocks or boxes to facilitate movement of materials or products. Removes samples of materials, labels with identifying information, and takes samples to laboratory for analysis. (LABORATORY-SAMPLE CARRIER, any ind.). Lifts heavy objects by hand or using power hoist, and cleans work area, machines, and equipment, using broom, rags, and cleaning compounds to assist machine operators. Makes simple adjustments or repairs, such as realining belts or replacing rollers, using handtools. Assembles crates to contain products, such as machines or vehicles, using handtools and precut lumber. Shovels loose materials such as sand, gravel, metals, plastics, or chemicals into machine hoppers or into vehicles and containers, such as wheelbarrows, scrap truck, or barrels. May occasionally operate industrial truck or electric hoist to assist in loading or moving materials and products. May be designated according to material handled as FILLING HAULER, WEAVING (textile); according to method of conveying materials as LUGGER (agric.); according to machine or equipment loaded or unloaded as BLUNGER LOADER (pottery & porc.); VEHICLE UNLOADER (any ind.); or according to work station as OUTSIDE TRUCKER (any ind.); PLATFORM LOADER (any ind.). Additional titles: BALE PILER (textile); BATCH TRUCKER (ruber tire & tube); BOBBIN HANDLER (textile); CAR LOADER (any ind.); CLOTH HAULER (textile); COAL PASSER (any ind.); COMPRESS TRUCKER (agric.); HOGSHEAD DUMPER (tobacco); KILN-CAR UNLOADER (brick & tile); LABORER, YARD (any ind.); LOADER (any ind.) II; LUMBER-YARD WORKER (woodworking); MERCHANDISE CARRIER (any ind.); MOLD MOVER (sports equip.); OVEN STRIPPER (any ind.); OVEN UNLOADER (any ind.); PACKAGING-MACHINE-SUPPLIES DISTRIBUTOR (tobacco); SLAB PICKER (sawmill); POWDER TRUCKER (ammunition; explosives); LOADER (wood distil. & char.); ROPER (agric.); ROVING STOCK HANDLER (textile); SCRAP WHEELER (mach. shop); SEGREGATOR (agric.; shole. tr.); SUGAR TRUCKER (corn prod.); TIRE TRUCKER (rubber tire & tube); TRUCKER, HAND (any ind.).

MATERIAL-HANDLER SUPERVISOR (any ind.) stock supervisor; traffic supervisor; warehouse supervisor 921.133-018

Supervises and coordinates activities of workers engaged in lifting, transporting, storing, and loading materials and products by use of conveyors, cranes, hoists, or industrial trucks, applying knowledge of plant layout and material-handling equipment and procedures: Studies receiving or shipping notices, requests for movement of raw materials and finished products, and reports of warehousing space available to develop schedule for material handling activities. May confer with supervisors of other departments to coordinate flow of materials or products. May verify or prepare records, such as routing slips, material requisitions, and job orders. May supervise activities of shipping and receiving personnel. May train new workers. Performs duties as described under SUPERVISOR (any ind.).

MEDICAL-LABORATORY ASSISTANT (medical ser.) 078.381-010

Performs routine tests in medical laboratory under supervision of MEDICAL TECHNOLOGIST (medical ser.) or other qualified individual, utilizing prescribed procedures, in urinalysis, hematology, serology, and bacteriology. May perform routine tests in chemistry.

MEDICAL-LABORATORY TECHNICIAN (medical ser.) medical technician 078-381-014

Performs routine tests in medical laboratory for use in treatment and diagnosis of disease: Prepares tissue samples for PATHOLOGIST (medical ser.). Takes blood samples. Executes such laboratory tests as urinalysis and blood counts. Makes quantitative and qualitative chemical and biological analyses of body specimens, under supervision of MEDICAL TECHNOLOGIST (medical ser.) or laboratory director. May be designated according to field of specialization as BLOOD-BANK TECHNICIAN (medical ser.); CYTOTECHNICIAN (medical ser.); HEMATOLOGY TECHNICIAN (medical ser.); SEROLOGY TECHNICIAN (medical ser.); TISSUE TECHNICIAN (medical ser.).

MEDICAL-RECORD CLERK (medical ser.) 245.362-010

Compiles, verifies, and files medical records of hospital or clinic patients and compiles statistics for use in reports and surveys: Prepares folders and maintains records of newly admitted patients. Reviews inpatient and emergency room records to insure presence of required reports and PHYSICIANS' (medical ser.) signatures, and routes incomplete records to appropriate personnel for completion or prepares reports of incomplete records to notify administration. Checks list of discharged patients to insure receipt of all current records. Compiles daily and periodic statistical data, such as admissions, discharges, deaths, births, and types of treatment rendered. Records diagnoses and treatments, including operations performed, for use in completing hospital insurance billing forms. May maintain death log. May type and process birth certificates. May assist other workers with coding of records. May make copies of medical records, using duplicating equipment. May schedule and post results of laboratory tests to records and be designated CHARTING CLERK (medical ser.).

MEDICAL RECORD TECHNICIAN (medical ser.) 079.367-014
hospital record administrator; medical record administrator

Compiles and maintains medical records of hospital and clinic patients: Reviews medical records for completeness and accuracy. Codes diseases, operations, diagnoses, and treatments. Compiles medical care and census data for statistical reports. Transcribes medical reports. Maintains indexes on patient, disease, operation, and other categories. Directs routine operation of medical record department. Files, or directs MEDICAL-RECORD CLERK (medical ser.) to file, patient records. Maintains flow of medical records and reports to departments. May assist medical staff in special studies or research.

MEDICAL SECRETARY (medical ser.) 201.362-014

Performs secretarial duties utilizing knowledge of medical terminology and hospital, clinic, or laboratory procedures: Takes dictation in shorthand or using transcribing machine. Compiles and records medical charts, reports, and correspondence, using typewriter. May prepare and send bills to patients and record appointments.

MEDICAL TECHNOLOGIST (medical ser.) 078.361-014

Performs chemical, microscopic, serologic, hematologic, immunohematologic, parasitic, and bacteriologic tests to provide data for use in treatment and diagnosis of disease: Receives specimens for laboratory, or obtains such body materials as urine, blood, pus, and tissue directly from patient, and makes quantitative and qualitative chemical analyses. Cultivates, isolates, and identifies pathogenic bacteria, parasites, and other micro-organisms. Cuts, stains, and mounts tissue sections for study by PATHOLOGIST (medical ser.). Performs blood tests for transfusions, studies morphology of blood. Groups or types blood and cross-matches that of donor and recipient to ascertain compatibility. Engages in medical research to further control and cure disease. May calibrate and use equipment designed to measure glandular and other bodily activity (NUCLEAR MEDICAL TECHNOLOGIST, medical ser.). May take electocardiograms. May train and supervise MEDICAL-LABORATORY TECHNICIAN (medical ser.) and student MEDICAL TECHNOLOGISTS (medical ser.). May be designated according to field of specialization as BLOOD-BANK TECHNOLOGIST (medical ser.); HEMATOLOGY TECHNOLOGIST (medical ser.); SEROLOGY TECHNOLOGIST (medical ser.).

MEDICAL TRANSCRIBER (see TRANSCRIBING-MACHINE OPERATOR)

METER READER (light, heat, & power; waterworks) 209.567-010

Reads electric, gas, water, or steam consumption meters and records volume used by residential and commercial consumers: Walks or drives truck over established route and takes readings of meter dials. Inspects meters and connections for defects, damage, and unauthorized connections. Indicates irregularities on forms for necessary action by servicing department. Verifies readings to locate abnormal consumption and records reasons for fluctuations. Turns service off for nonpayment of charges in vacant premises, or on for new occupants. Collects bills in arrears. Returns route book to business office for billing purposes. May be designated according to type of meter read as ELECTRIC-METER READER (light, heat, power); GAS-METER READER (light, heat, power); STEAM-METER READER (light, heat, power); WATER-METER READER (waterworks).

MOTION-PICTURE PROJECTIONIST (amuse. & rec.; motion pic.) audiovisual equipment operator; process projectionist; projectionist; theater projectionist 960.362-010

Sets up and operates motion picture projection and sound-reproducing equipment to produce coordinated effects on screen: Inserts film into top magazine reel of projector. Threads film through picture aperture of projector, around pressure rollers, sprocket wheels, and sound drum or magnetic sound pickup on film, and onto spool that automatically takes up film slack. Regulates projection light and adjusts sound-reproducing equipment. Monitors operation of machines and transfers operation from one machine to another without interrupting flow of action on screen. Rewinds broken end of film onto reels by hand to minimize loss of time. Inspects and rewinds projected films for another showing. Repairs faulty sections of film. Operates stereopticon (magic lantern) or other special-effects equipment to project picture slides on screen. Clean lenses, oils equipment, and makes minor repairs and adjustments.

MOTOR REPAIRMAN (see ELECTRIC-MOTOR REPAIRER)

NOODLE MAKER (macaroni & rel. prod.) 529.385-010

Tends series of machines that mix, knead, roll, and cut dough to make noodles: Weighs and measures specified ingredients according to standard formulas, and dumps them into mixing machine. Moves lever to empty mixed ingredients into kneading machine. Feeds kneaded dough into rolling machine that forms dough into sheet and winds sheet into roll. Turns knob to regulate roller clearance and dusts rolled sheet with cornstarch. Inserts end of sheet into feed rollers of cutting machine that slits sheet into strands. Slides rod under emerging strands to drape strands over rod. Pulls lever to cut strands to specified length and hangs filled rod on rack. Pushes rack into drying room, and sets thermostat to specified temperature. Feels and observes consistency of product throughout operation to control quality and processing time. May cut noodles into packaging lengths, using knife. May weigh and wrap noodles in cellophane or pack them in cartons.

NURSE AIDE (medical ser.) hospital attendant; nursing assistant 355.674-014

Assists in care of hospital patients, under direction of nursing and medical staff: Answers signal lights and bells to determine patients' needs. Bathes, dresses, and undresses patients. Serves and collects food trays and feeds patients requiring help. Transports patients to treatment units, using wheelchair or wheeled carriage, or assists them to walk. Drapes patients for examinations and treatments, and remains with patients, performing such duties as holding instruments and adjusting lights. Dusts and cleans patients' rooms. Changes bed linens, runs errands, directs visitors, and answers telephone. Takes and records temperature, pulse and respiration rates, and food and liquid intake and output, as directed. May apply compresses and hot water bottles. May clean, sterilize, store, prepare, and issue dressing packs, treatment trays, and other supplies and be designated as NURSE AIDE, CENTRAL SUPPLY (medical ser.). May prepare patients for delivery and clean delivery rooms, and be designated as NURSE AIDE, DELIVERY (medical ser.). May bathe, weigh, dress, and feed newborn babies and be designated as NURSE AIDE, NURSERY (medical ser.). May clean, sterilize, and assemble into packs, supplies and instruments used in surgery, and maintain cleanliness and order of operating rooms and be designated as NURSE AIDE, SURGERY (medical ser.).

NURSE, GENERAL DUTY (medical ser.) nurse, staff 075.374-010

Renders general nursing care to patients in hospital, infirmary, sanitarium, or similar institution: Administers prescribed medications and treatments in accordance with approved nursing techniques. Prepares equipment and aids PHYSICIAN (medical ser.) during treatments and examinations of patients. Observes patient, records significant conditions and reactions, and notifies supervisor or PHYSICIAN (medical ser.) of patient's condition and reaction to drugs, treatments, and significant incidents. Takes temperature, pulse, blood pressure, and other vital signs to detect deviations from normal and determine progress of patient. May rotate among various clinical services of institution, such as obstetrics, surgery, orthopedics, outpatient and admitting, pediatrics, psychiatry, and tuberculosis. May prepare rooms, sterile instruments, equipment, and supplies, and handling, in order of use, to assist SURGEON (medical ser.) I or OBSTETRICIAN (medical ser.) in operations and deliveries. May make beds, bathe and feed patients, and assist in their rehabilitation. May serve as leader for group of personnel rendering nursing care to number of patients.

NURSE, HEAD (medical ser.) 075.127-018

Directs nursing activities and instructs nurses in organized hospital unit: Assigns duties and coordinates nursing service. Evaluates nursing activities to insure patient care and visits patients to insure that nursing care is carried out as directed, and treatment administered in accordance with PHYSICIAN'S (medical ser.) instructions. Directs preparation and maintenance of patients' clinical records. Inspects rooms and wards for cleanliness and comfort. Accompanies PHYSICIAN (medical ser.) on rounds, and keeps informed of special orders concerning patients. Participates in orientation and instruction of personnel. Orders, or directs ordering of drugs, solutions, and equipment, and maintains records on narcotics. Investigates and resolves complaints, or refers unusual problems to superior.

NURSE, LICENSED PRACTICAL (medical ser.) 079.374-014

Cares for ill, injured, convalescent, and handicapped persons in hospitals, clinics, private homes, sanitariums, and similar institutions: Takes and records temperature, blood pressure, and pulse and respiration rate. Dresses wounds, gives enemas, douches, alcohol rubs, and massages. Applies compresses, ice bags, and hot water bottles. Observes patients and reports adverse reactions to medical personnel in charge. Administers specified medication, and notes time and amount on patients' charts. Assembles and uses such equipment as catheters, tracheotomy tubes, and oxygen suppliers. Performs routine laboratory work, such as urinalysis. Sterilizes equipment and supplies, using germicides, sterilizer, or autoclave. Prepares food trays and feeds patients. Records food and fluid intake and output. Bathes, dresses, and assists patients in walking and turning. Cleans rooms, makes beds, and answers patients' calls. Washes and dresses bodies of deceased persons. Must pass state board examination and be licensed. May assist in delivery, care, and feeding of infants.

NURSE, OFFICE (medical ser.) 075.374-014

Cares for and treats patients in office, as directed by PHYSICIAN (medical ser.): Prepares patient for and assists with examinations. Administers injections and medications, dresses wounds and incisions, interprets PHYSICIAN'S (medical ser.) instructions to patients, assists with emergency and minor surgery, and performs related tasks as directed. Maintains records of vital statistics and other pertinent data of patient. Cleans and sterilizes instruments and equipment, and maintains stock of supplies. May conduct laboratory tests. May record and develop electrocardiographs and X-rays. May act as receptionist. perform secretarial duties, and prepare monthly statements.

NURSING ASSISTANT, OPERATING ROOM (see NURSE AIDE)

OFFSET-PRESS OPERATOR (print. & pub.) I 651.482-010
lithographic-press operator

Makes ready and operates offset printing press to print single and multicolor copy from lithographic plates, examining job order to determine press operating time, quantity to be printed, and stock specifications: Washes plate to remove protective gum coating. Builds up back of plate with sheets of folio to raise plate to printing level. Installs plate with backing on plate cylinder and locks in position, using handtools. Applies folio to blanket cylinder to build up to diameter of plate cylinder. Fills ink fountains. Adjusts space between blanket and impression cylinders according to thickness of paper stock. Adjusts controls to regulate moisture delivery to plate cylinder. Operates press to secure proof copy. Examines proof and adjusts press controls to obtain specific color registration. Starts press and completes production run. Removes and cleans plate and cylinders at end of run.

OPERATIONS OFFICER (finan. inst.) 186.167-050

Directs and coordinates activities of personnel involved in performing internal operations in department or branch office of financial institution, such as bank or savings and loan association: Audits accounts, records of proof, and certifications to insure compliance of workers with established standard procedures and practices. Compiles required and special reports on operating functions of department or branch. Interviews, selects, and hires new employees. Directs employee training to improve efficiency and insure conformance with standard procedures and practices. Verifies workers' count of incoming cash shipments. Controls supply of money on hand commensurate with branch's daily needs and legal requirements. Conducts staff meetings of operations personnel, or confers with subordinate supervisors to discuss operational problems or explain procedural changes or practices. May be designated according to financial institution as OPERATIONS OFFICER, BRANCH BANK (finan. inst.); OPERATIONS OFFICER, BRANCH OFFICE (finan. inst.) or department as OPERATIONS OFFICER, TRUST DEPARTMENT (finan. inst.).

OPERATOR, DAIRY PROCESSING EQUIPMENT (see DAIRY-PROCESSING-EQUIPMENT OPERATOR)

ORDER CLERK (clerical) customer-order clerk; order filler; order taker 249.367-054

Processes orders for material or merchandise received by mail, telephone, or personally from customer or company employee: Edits orders received for price and nomenclature. Informs customer of unit prices, shipping date, anticipated delays, and any additional information needed by customer, using mail or telephone. Writes or types order form and computes total cost for customer. Records or files copy of orders received according to expected delivery date. May ascertain credit rating of customer (CREDIT CLERK, clerical). May check inventory control and notify stock control departments of orders that would deplete stock. May initiate purchase requisitions. May route orders to departments for filling and follow up on orders to insure delivery by specified dates and be designated TELEPHONE-ORDER DISPATCHER (clerical). May compute price, discount, sales representative's commission and shipping charges. May prepare invoices and shipping documents, such as bill of lading (BILLING TYPIST, clerical). May recommend type of packing or labeling needed on order. May receive and check customer complaints (CUSTOMER-COMPLAINT CLERK, clerical). May confer with production, sales, shipping, warehouse, or common carrier personnel to expedite or trace missing or delayed shipments (TRACER CLERK, clerical). May attempt to sell additional merchandise to customer (TELEPHONE SOLICITOR, any ind.). May compile statistics and prepare various reports for management. May be designated according to method of receiving orders as MAIL-ORDER CLERK (clerical); TELEPHONE-ORDER CLERK (clerical).

OUTPATIENT-ADMITTING CLERK (medical ser.) 205.362-030

Interviews new outpatients at hospital or clinic and records data on medical charts: Obtains specified information from patient, such as age, insurance coverage, and symptoms, and types information onto prescribed forms. Places records and blank history sheets in order and files them in folder. Schedules appointments for examinations in hospital clinics, according to nature of illness. Gives general information about outpatient care and answers telephone. May tally number of outpatients entering each day or week. May give first aid.

PBX OPERATOR (see TELEPHONE OPERATOR)

PACKAGER, HAND (any ind.) hand packager 920.587-018

Packages materials and products manually, performing any combination of following duties: Cleans packaging containers. Lines and pads crates and assembles cartons. Obtains and sorts product. Wraps protective material around product. Starts, stops, and regulates speed of conveyor. Inserts or pours product into containers or fills containers from spout or chute. Weighs containers and adjusts quantity. Nails, glues, or closes and seals containers. Labels containers, container tags, or products. Sorts bundles or filled containers. Packs special arrangements or selections of product. Inspects materials, products, and containers at each step of packaging process. Records information, such as weight, time, and date packaged. May be designated according to whether high-production or small-lot packaging as FANCY PACKER (ret. tr.; whole. tr.); PACKAGING-LINE ATTENDANT (any ind.); specific packaging duty performed, such as filling, wrapping, packing, labeling, and container cleaning as SACK SEWER, HAND (any ind.); kinds of equipment used or product packaged as CANDLE WRAPPER (candle); CARTON STAPLER (any ind.); or whether packager performs associated duties, such as final assembly, before packaging product as NOVELTY-BALLOON ASSEMBLER AND PACKER (rubber goods). May weigh and package meat in retail store and be designated MEAT WRAPPER (ret. tr.). Additional titles: BAGGER (any ind.); BOW MAKER, GIFT WRAPPING (any ind.); BOX MAKER, CARDBOARD (any ind.); BOX WRAPPER (any ind.); BUNDLER (any ind.); CANDY PACKER (confection.); CASER, ROLLED GLASS (glass mfg.); COIL STRAPPER (iron & steel); CONTAINER FILLER (any ind.); FILLER (any ind.); FURNITURE PACKER (ret. tr.); GRADER, SAUSAGE AND WEINER (slaught. & meat pack.); GUNCOTTON PACKER (explosives); INSERTER, PROMOTIONAL ITEM (any ind.); INSPECTOR-PACKAGER (any ind.); LIDDER (any ind.); MATTRESS PACKER (mat. & bedspring); PACKAGER, MEAT (slaught. & meat pack.); PACKER, DRIED BEEF (slaught. & meat pack.); PACKER, FOAMED-IN-PLACE (any ind.); PACKER, SAUSAGE AND WEINER (slaught. & meat pack.); PIECE-GOODS PACKER (textile); SCALER, SLICED BACON (slaught. & meat pack.); SPONGE PACKER (whole. tr.); STAMPER (any ind.); TABLE WORKER (any ind.); TUBE PACKER (rubber tire & tube); WRAPPER (any ind.); WRAPPER, HAND (can. & preserv.); WRAPPING REMOVER (any ind.). (Workers who tend packaging machines are classified under PACKAGER, MACHINE, any ind.).

PAINT SPRAYER (see PAINTER, SPRAY)

PAINTER, BRUSH (any ind.) painter, hand 740.684-022

Brushes paint, lacquer, rustproofing agent, or other coating onto metal, woodstock, or fabricated items, using brush: Places workpiece on bench, stanchion, or floor. Cleans surfaces, using hand scraper, wire brush, sandpaper, or turpentine. Pours desired amount of thinner into paint. Paints articles, using brush. Cleans brushes and floor, using solvent or soap and water. May transfer items to and from work area, using hoist or handtruck. May be designated according to article painted as LAST-CODE STRIPER (lasts & rel. forms); PAINTER, DRUM (any ind.); PAINTER, MANNEQUIN (model & pattern); PIPE COATER (iron & steel); or according to coating applied as JAPANNER (any ind.); LACQUERER (mach. shop); CAR VARNISHER (loco. & car bldg. & rep.).

PAINTER, SPRAY (any ind.) I spray-gun operator 741.684-026

Sprays surfaces of machines, manufactured products, or working area with protective or decorative material, such as paint, enamel, glaze, gel-coat, or lacquer, using spray gun: Cleans grease and dirt from product, using materials, such as lacquer thinner, turpentine, soap, and water. Applies masking tape over parts and areas that are not to be coated (MASKER, any ind.). Fills cavities and dents with putty to attain smooth surface. Selects and mixes coating liquid to produce desired color, according to specifications, using paddle or mechanical mixer. Pours coating liquid into spray container and connects gun to airhose, using wrenches. Turns sprayer valves and nozzle to regulate width and pressure of spray, according to knowledge of painting technique. Pulls trigger and directs spray onto work suface to apply prime or finish coat. Coats areas inaccessible to hand sprayer, using brush. Cleans spraying equipment and brushes with solvent. May heat and spray wax onto products after they are tested. May use acid, wire brush, or steel wool to remove rust from metal. May paint designs on rug surfaces for decorative purposes or for use as guidelines in carving rugs, using spray gun and stencil, and be designated as STENCILER (carpet & rug). May be designated according to article sprayed as HAT SPRAYER (hat & cap); PAINTER, ORDINANCE (firearms); SPRAYER, RAILROAD CAR (loco. & car bldg. & rep.; r.r. trans.); or according to material used as GEL-COAT SPRAYER (ship & boat bldg. & rep.; sports equip.); PORCELAIN-ENAMEL SPRAYER (any ind.). Additional Titles: CERAMIC SPRAYER (brick & tile; pottery & porc.); ENAMELER (pottery & porc.); ENAMEL SPRAYER (any ind.) I; GLAZE SPRAYER (auto mfg.); LACQUER SPRAYER (any ind.) I; PAINTER, INSIGNIA (aircraft-aerospace mfg.; auto. mfg.); PANEL FINISHER (paint & varn.); PRIMER SPRAYER (aircraft-aerospace mfg.; auto. mfg.); SPRAYER, AUTO PARTS (auto. mfg.); THINNER SPRAYER (auto. mfg.); UNDERCOAT SPRAYER (aircraft-aerospace mfg.; auto. mfg.).

PAINTING-MACHINE OPERATOR (any ind.) spray-machine operator 599.685-074

Tends machine equipped with compressed-air spray nozzles that coat products or materials with oil, paint, lacquer, varnish, shellac, or rust-proofing agents: Pours premixed paint or lacquer into reservoir of machine and couples hose to spray nozzles. Moves sleeve on nozzles to attain specified spraying pressure and turns thumbscrew to dirrect nozzles toward articles or materials to be coated. Places articles or material onto conveyor or onto transfer table that carries them between spray nozzles. May mix paints with thinner solution according to formula. May regulate temperature of coating solution. May remove articles or materials from conveyor belt and place articles or materials in drying racks or container. May be designated according to coating applied as LACQUER COATER (fabric. plastics prod.); OILING-MACHINE OPERATOR (iron & steel); SPRAY-PAINTER, MACHINE (build. board).

PARTS-ORDER-AND-STOCK CLERK (clerical) 249.367-058
purchaser, automotive parts

Purchases, stores, and issues spare parts for motor vehicles or industrial equipment: Obtains purchase order number from purchasing department and assigns identifying number. Reads shop manuals to ascertain type and specification of part. Visits, telephones, telegraphs, or contacts vendors by mail to order parts. Compares invoices against requisitions to verify quality and quantity of merchandise received. Stores purchased parts in storeroom bins and issues parts to workers upon request. Keeps records of parts received and issued, and inventories parts in storeroom periodically. May record repair time expended by mechanics. May requisition parts from central parts department for national organization.

PAYROLL CLERK, CHIEF (clerical) rating clerk, 215.137-014
chief; timekeeper, chief

Supervises and coordinates activities of workers engaged in processing timecards, compiling payroll statistics, maintaining payroll control records, recording hours of work, and calculating payrolls: Reviews personnel records to determine names, rates of pay, and occupations of new hires, and changes in wage rates and occupations of employees on payroll, and records on payroll register. Directs computation of differential pay according to company policy. Directs compilation and preparation of other payroll data, such as pension, insurance, bond purchases, and credit union payments. Reviews and approves payroll deductions. Interprets company policies and government regulations in connection with payroll procedures. Directs preparation of government reports. Analyzes payrolls for accuracy before extensions are made. May direct computation and distribution of

labor and equipment costs for specific work orders to various accounts in payroll section of utilities office and be designated SUPERINTENDENT, PAYROLL SECTION (light, heat, & power). Performs duties as described under SUPERVISOR (clerical).

PHOTOGRAPHER, STILL (profess. & kin.) commercial 143.062-030
photographer

Photographs subjects using still cameras, color or black-and-white film, and a variety of photographic accessories: Selects and assembles equipment according to subject material, anticipated conditions, and knowledge of function and limitations of various types of cameras, lenses, films, and accessories. Views subject and setting and plans composition, camera position, and camera angle to produce desired effect. Arranges subject material, poses subject, or maneuvers into position to take candid photo. Estimates or measures light level, using light meter or creates artificial lighting with flash units, lights, and lighting equipment. Adjusts lens aperture and shutter speed based on combination of factors, such as lighting, depth of field, subject motion, and film speed. Determines subject to lens distance, using tape measure, range finder, ground glass, or reflex viewing system to adjust focus. Positions camera and trips shutter to expose film. May calculate variables, such as exposure time, exposure interval, filter effect, and color temperature using tables, standard formulas, and mechanical or electronic measuring instruments. May make adjustments to camera, lens, or equipment to compensate for factors, such as distorted perspective and parallax. May be required to have detailed knowledge of use and characteristics of various types of film, including specialty films, such as infrared. May design, build, arrange, or secure properties and settings to be used as background for subject material. May direct activities of other workers. May mix chemicals, process film and photographic paper, and make contact and enlarged prints. May spot and retouch prints and negatives. May conceive and plan photographic sequence for effective presentation. May specialize in particular type of photography, such as illustrative, fashion, architectural, or portrait and be designated accordingly.

PHOTOTYPESETTER OPERATOR (print. & pub.) 650.582-022
phototypesetter

Operates keyboard of automatic phototypesetting machine to photographically print type matter onto film or strips of photosensitive paper to prepare positives or paper flats for making printing plates: Loads roll of photosensitive paper or film into camera magazine, positions magazine on machine, and pulls lever to open exposure slot. Starts typesetting mechanism. Turns dial to select lens and regulate gear that controls size (magnification or reproduction) of matrix letter, exposure, and light intensity, or moves selector levers, depresses keys or control buttons to select style and size of type. Depresses keys of keyboard to select foto mats for printing onto photopaper or film. Cuts photopaper with knife to separate exposed portion. Removes exposed photopaper or film from magazine for developing. May perform routine maintenance and adjustments on machine, using handtools. (See COMPOSITOR--973.381)

PLAYROOM ATTENDANT (any ind.) kindergartner 359.677-026

Entertains children in nursery of department store, country club, or similar establishment as service to patrons. Reads aloud, organizes and participates in games, and gives elementary lessons in arts or crafts.

POSTAL DISTRIBUTION CLERK (see POST-OFFICE CLERK)

POST-OFFICE CLERK (gov. ser.) postal clerk 243.367-014

Performs any combination of following tasks in post office: Sells postage stamps, postal cards, and stamped envelopes. Issues money orders. Registers and insures mail and computes mailing costs of letters and parcels. Places mail into pigeonholes of mail rack, or into bags, according to state, address, name of person, organization, or other scheme. Examines mail for correct postage and cancels mail, using rubber stamp or canceling machine. Weighs parcels and letters on scale and computes mailing cost based on weight and destination. Records daily transactions. Receives complaints concerning mail delivery, mail theft, and lost mail, completes and routes appropriate forms for investigation. Answers questions pertaining to mail regulations or procedures. Posts circulars on bulletin board for public information; distributes public announcements; and assists public in complying with other federal agency requirements; such as registration of aliens. May drive motorcycle or light truck to deliver special delivery letters. May be employed in remote retail store contracted by post office to provide postal services and be designated as CONTRACT-POST-OFFICE CLERK (ret. tr.).

POWER SEWING MACHINE OPERATOR (see SEWING-MACHINE OPERATOR)

PRESS OPERATOR (forging) II press hand; press operator 611.685-010

Tends closed-die power press that produces metal forgings: Pulls workpiece from furnace, when color of workpiece indicates forging temperature, and positions it on lower die, using tongs. Moves controls to lower ram that compresses metal to shape of die impressions. May move workpiece through series of dies for progressively finer detail. May tend press to emboss designs on metal or compress and smooth surface of metal blanks or rough forgings and be designated CORNING-PRESS OPERATOR (forging). May tend press that twists forging to form journals and counterweights on crankshafts to specified degree of eccentricity and be designated TWISTING-PRESS OPERATOR (forging).

PRESS OPERATOR (mfg) (see FORGING PRESS OPLRATOR)

PRESS OPERATOR (prtg) (see OFFSET-PRESS OPERATOR)

PRESSURE CONTROLLER (light, heat, & power) 953.362-018

Controls volume of gas in city distribution mains to insure adequate gas supply according to consumer demand: Determines required governor adjustments to maintain specified gas pressure and volume according to consumer-demand estimates, based on weather conditions and time of day or night, or receives governor adjustment instructions from PRESSURE SUPERVISOR (light, heat, & power). Changes position or number of weights on balance lever or turns valves to adjust governors located at various regulating stations within city. Operates switchboard to adjust governors which are remotely controlled by electric telemetering equipment. May overhaul gas governors (GAS-REGULATOR REPAIRER, light, heat, & power; petrol. refin.; pipe lines). May change charts in recording meters (CHART CHANGER, clerical). May clean pits housing governors, using suction pump and shovel. May determine causes of abnormal pressure variances and make corrective recommendations, such as installation of pipe to relieve overloading.

PRICE CHECKER (see CHECKER)

PROGRAMMER, BUSINESS (profess. & kin.) 020.162-014

Converts symbolic statements of administrative data or business problems to detailed logical flow charts for coding into computer language: Analyzes all or part of workflow chart or diagram representing business problem by applying knowledge of computer capabilities, subject matter, algebra, and symbolic logic to develop sequence of program steps. Confers with supervisor and representatives of departments concerned with program to resolve questions of program intent, output requirements, input data acquisition, extent of automatic programming and coding use and modification, and inclusion of internal checks and controls. Writes detailed logical flow chart in symbolic form to represent work order of data to be processed by computer system, and to describe input, output, and arithmetic and logical operations involved. Converts detailed logical flow chart to language processable by computer (PROGRAMMER, DETAIL, clerical). Devises sample input data to provide test of program adequacy. Prepares block diagrams to specify equipment configuration. Observes or operates computer to test coded program, using actual or sample input data. Corrects program errors by such methods as altering program steps and sequence. Prepares written instructions (run book) to guide operating personnel during production runs. Analyzes, reviews, and rewrites programs to increase operating efficiency or adapt to new requirements. Compiles documentation of program development and subsequent revisions. May specialize in writing programs for one make and type of computer.

PROJECT ENGINEER (profess. & kin.) chief engineer 019.167-014

Directs, coordinates, and exercises functional authority for planning, organization, control, integration, and completion of, engineering project within area of assigned responsibility: Plans and formulates engineering program and organizes project staff according to project requirements. Assigns project personnel to specific phases or aspects of project, such as technical studies, product design, preparation of specifications and technical plans, and product testing, in accordance with engineering disciplines of staff. Reviews product design for compliance with engineering principles, company standards, and customer contract specifications. Coordinates activities concerned with technical developments, scheduling, and resolving engineering design and test problems. Directs integration of technical activities and products. Evaluates and approves design changes, specifications, and drawing releases. Controls expenditures within limitations of project budget. Prepares interim and completion project reports.

PROJECTIONIST (see MOTION-PICTURE PROJECTIONIST)

PROOFING MACHINE OPERATOR (See TRANSIT CLERK)

PSYCHIATRIC AIDE (medical ser.) assistant therapy aide; asylum attendant; charge attendant; psychiatric attendant; ward attendant 355.377-014

Assists mentally ill patients, working under direction of nursing and medical staff: Accompanies patients to shower rooms, and assists them in bathing, dressing, and grooming. Accompanies patients to and from wards for examination and treatment, and administers prescribed medications. Assists patients in becoming accustomed to hospital routine and encourages them to participate in social and recreational activities, such as visiting, sports, and dramatics, to promote rehabilitation. Observes patients to ensure that none wanders from grounds. Feeds patients or attempts to persuade them to eat, and notes reasons for rejection of food. Observes patients to detect unusual behavior, and aids or restrains them to prevent injury to themselves or other patients. May escort patients off grounds for medical or dental treatment, to library for selection of reading materials, and to church services, motion pictures, or athletic contests. May clean rooms, ward furnishings, walls, and floors, using water, detergents, and disinfectants. May change bed linens. May be designated as WARD SUPERVISOR (medical ser.) when responsible for patient care and other services of a single ward.

PURCHASING AGENT (profess. & kin.) buyer; director, purchasing; manager, purchasing; manager, supply; purchaser 162.157-038

Purchases raw materials or other unprocessed goods for processing, or machinery, equipment, tools, parts, produce, and other supplies or services necessary for operation of organization: Reviews requisitions. Interviews vendors to obtain information concerning product, price, ability of vendor to produce product or service, and delivery date. Selects purchase items by testing, observing, or otherwise examining. Estimates values according to knowledge of market price. Reviews bid proposals from vendors and enters into contracts within budgetary limitations. Keeps records pertaining to items purchased, costs, delivery, product performance, and inventories. Discusses defects of purchased goods with quality control or inspection personnel to determine source of trouble and takes corrective action. May approve bills for payment. May be designated according to type of goods purchased as BUYER, ELECTRONICS (elec. equip.); BUYER, FISH (can. & preserv.); BUYER, FOOD (hotel & rest.); BUYER, FURS (whole. tr.). May be designated according to position held as MANAGER, STOREROOM (hotel & rest.); SUPPLY REQUIREMENTS OFFICER (gov. ser.). Additional titles: BUYER, MAPLE SYRUP (food prep., n.e.c.); BUYER, TIME AND SPACE (bus. ser.); BUYER, TOBACCO (whole. tr.); LOGISTICS OFFICER (gov. ser.); PIECE-GOODS BUYER (garment); PURVEYOR (hotel & rest.); STOCK BUYER (any ind.).

RUG CLEANER, HAND (clean., dye., & press.) carpet cleaner; rug renovator; rug scrubber; rug shampooer; rug washer 369.384-014

Cleans rugs with chemical solutions in plant or on customer's premises, using handbrushes or portable scrubbing machine, determining washing method according to condition of rug: Vacuums rugs to remove loose dirt. Guides scrubbing machine over rug surface or sprays rug with cleaning solution under pressure to agitate nap and loosen embedded dirt. Removes excess suds and water from rug during scrubbing operation, using vacuum nozzle or squeegee. Identifies persistent stains and selects spotting agent to remove stain according to type of fiber, dye, and stain. Rubs chemical solution into rug with handbrush until stain disappears. Rinses rug, using water hose, and hangs rug on rack to dry. Pushes pilating (pile lifting) machine over surface of dried rug to raise and fluff nap or brushes pile, using broom. Removes excess water by feeding rugs between rollers of mechanical wringer, putting rugs in extractor, or going over surface with squeegee or vacuum nozzle. Brushes, sprays, or sprinkles sizing solutions on the backs of rugs, using handbrush, spray gun, or sprinkling can. May scrub fragile or oriental rugs, using handbrush, soap, and water. May spray acetic acid or salt solution over washed rugs to prevent colors from running. May measure rugs to determine cleaning fee. May clean upholstered furniture, using sponge, brush, and cleaning solutions. May trim frayed edges of carpet and rebind carpet edges, using scissors, knife, needle, and thread. May perform rug cleaning duties as employee of establishment, such as hotel.

SAFE-DEPOSIT-BOX RENTAL CLERK (finan. inst.) 295.367-022

Rents safe-deposit boxes to bank customers: Interviews customer to obtain necessary data. Types rental contract and obtains customer's signature. Collects rental fee and writes receipt. Issues safe-deposit-box keys to customer. Keeps safe-deposit records, such as signature cards, rental files, and access slips to vault area. Orders replacements for lost keys, and repairs for safe-deposit box locks. May admit customers to bank vault (VAULT ATTENDANT, finan. inst.). May calculate installment payments for customer, using calculating machine.

SALES ASSISTANT (see SUPERVISOR, ROUTE SALES-DELIVERY DRIVERS)

SALES CLERK (ret. tr.) 290.477-014

Obtains or receives merchandise, totals bill, receives payment, and makes change for customers in such retail stores as tobacco shop, drug store, candy store, or liquor store: Stocks shelves, counters, or tables with merchandise. Sets up advertising displays or arranges merchandise on counters or tables to promote sales. Stamps, marks, or tags price on merchandise. Obtains merchandise requested by customer or receives merchandise selected by customer, using paper and pencil, cash register, or adding machine, to determine bill; receives payment, and makes change. Occasionally calculates sales discount in determining sales slip. Wraps or bags merchandise for customers. Cleans shelves, counters, or tables as necessary. May keep record of sales, prepare inventory of stock, or order merchandise. May be designated according to product sold or type of store.

SALES REPRESENTATIVE, ADVERTISING (print. & pub.) advertising-sales representative; advertising solicitor 254.357-014

Sells classified and display advertising space for publication: Prepares list of prospects from leads in other papers and from old accounts. Obtains pertinent information concerning prospect's past and current advertising for use in sales presentation. Visits advertisers to point out advantages of own publication and exhibits prepared layouts with mats and copy with headings. May collect payments due. Usually designated by type of advertising sold as SALES REPRESENTATIVE, CLASSIFIED ADVERTISING (print. & pub.); SALES REPRESENTATIVE, DISPLAY ADVERTISING (print. & pub.).

SALES REPRESENTATIVE, BUILDING EQUIPMENT AND SUPPLIES (whole. tr.) 274.357-018

Sells building materials, equipment, and supplies, such as heating or air-conditioning equipment, building insulation, glass, floor tiles, bricks, lumber, plumbing fixtures, and roofing, utilizing knowledge of building construction and ability to read blueprints. Performs other duties as described under SALES REPRESENTATIVE (ret. tr.; whole. tr.).

SALES REPRESENTATIVE, GENERAL MERCHANDISE (whole. tr.) 279.357-014

Sells variety of merchandise, such as dry goods, notions, and housewares, to retail stores or other outlets, performing duties as described under SALES REPRESENTATIVE (ret. tr.; whole. tr.).

SALESPERSON, AUTOMOBILES (ret. tr.) 273.353-010
salesperson, cars

Sells new or used automobiles on premises of automobile agency: Explains features and demonstrates operation of car in showroom or on road. Suggests optional equipment for customer to purchase. Computes and quotes sales price, including tax, trade-in allowance, license fee, and discount, and requirements for financing payment of car on credit. Performs other duties as described under SALESPERSON (ret. tr.; whole. tr.). May be designated as SALESPERSON, NEW CARS (ret. tr.); SALESPERSON, USED CARS (ret. tr.).

SECRETARY (clerical) secretarial stenographer 201.362-030

Schedules appointments, gives information to callers, takes dictation, and otherwise relieves officials of clerical work and minor administrative and business detail: Reads and routes incoming mail. Locates and attaches appropriate file to correspondence to be answered by employer. Takes dictation in shorthand or by machine (STENOTYPE OPERATOR, clerical) and transcribes notes on typewriter, or transcribes from voice recordings (TRANSCRIBING-MACHINE OPERATOR, clerical). Composes and types routine correspondence. Files correspondence and other records. Answers telephone and gives information to callers or routes call to appropriate official and places outgoing calls. Schedules appointments for employer. Greets visitors, ascertains nature of business, and conducts visitors to employer or appropriate person. May not take dictation. May arrange travel schedule and reservations. May compile and type statistical reports.

May oversee clerical workers. May keep personnel records (PERSONNEL CLERK, clerical). May record minutes of staff meetings. May make copies of correspondence or other printed matter, using copying or duplicating machine. May prepare outgoing mail, using postage-metering machine.

SECRETARY, MEDICAL (see MEDICAL SECRETARY)

SECRETARY, PERSONNEL (see SECRETARY)

SECURITY OFFICER (any ind.) 189.167-034

Plans and establishes security procedures for company engaged in manufacturing products or processing data or material for Federal government: Studies Federal security regulations and restrictions relative to company operations. Directs activities of personnel in developing company security measures which comply with Federal regulations. Consults with local, district, or other Federal representatives for interpretation or application of particular regulations applying to company operations. Prepares security manual outlining and establishing measures and procedures for handling, storing, safekeeping, and destroying classified records and documents, and for granting company personnel or visitors access to classified material or entry into restricted areas. Directs and coordinates activities of personnel in revising or updating security measures due to new or revised regulations. May request deviations from restrictive regulations that interfere with normal operations.

SERVICE REPRESENTATIVE (see CUSTOMER-SERVICE REPRESENTATIVE)

SEWING-MACHINE OPERATOR (any ind.) 787.682-046

Operates sewing machine to join, gather, hem, reinforce, or decorate articles. Performs duties as described under SEWING-MACHINE OPERATOR, REGULAR EQUIPMENT (any ind.)

SHEET-METAL WORKER (any ind.) sheet-metal mechanic 804.281-010

Fabricates, assembles, installs, and repairs sheet metal products and equipment, such as control boxes, drainpipes, ventilators, and furnace casings, according to job order or blueprints: Selects gage and type of sheet metal according to product being fabricated and knowledge of metal. Locates and marks dimension and reference lines on metal sheet (SHEET-METAL LAY-OUT WORKER, any ind.). Sets up and operates fabricating machines, such as shears, brakes, bending rolls, and punch and drill presses to cut, bend, and straighten sheet metal. Shapes metal over anvils, blocks, or forms, using hammer. Sets up and operates soldering and welding equipment to join together sheet metal parts. Smooths seams, joints, or burred surfaces, using files and portable grinder or buffer. Installs assemblies in plant or worksite according to blueprint specifications, using handtools and portable power tools. Inspects assemblies and installation for conformance with specifications, using measuring instruments, such as calipers, scales, and micrometer. May be designated according to type of metal used as COPPERSMITH (any ind.); TINSMITH (any ind.); or according to type of activity as FABRICATOR, SPECIAL ITEMS (any ind.); MODEL MAKER, SHEET METAL (any ind.); PRODUCT-DEVELOPMENT WORKER (any ind.); ROOFER, METAL (const.); SHEET-METAL INSTALLER (any ind.); SHEET-METAL WORKER, MAINTENANCE (any ind.); SHOP MECHANIC (any ind.).

SHIPPING AND RECEIVING CLERK (clerical) 222.387-050

Verifies and keeps records on incoming and outgoing shipments and prepares items for shipment: Compares identifying information and counts, weighs, or measures items of incoming and outgoing shipments to verify against bills of lading, invoices, orders, or other records. Determines method of shipment, utilizing knowledge of shipping procedures, routes, and rates. Assembles wooden or cardboard containers or selects preassembled containers. Inserts items into containers, using spacers, fillers, and protective padding. Nails covers on wooden crates and binds containers with metal tape, using strapping machine. Stamps, stencils, or glues identifying information and shipping instructions onto crates or containers. Posts weights, shipping charges and affixes postage. Unpacks and examines incoming shipments, rejects damaged items, records shortages, and corresponds with shipper to rectify damages and shortages. Routes items to departments. May operate tier-lift truck or use handtruck to move, convey, or hoist shipments from shipping-and-receiving platform to storage or work area. May direct others in preparing outgoing and receiving incoming shipments. May perform only shipping or receiving activities and be known as SHIPPING CLERK (clerical) or RECEIVING CLERK (clerical). May be designated according to specialty as FREIGHT CLERK (clerical); RESHIPPING CLERK (clerical). May receive damaged or defective goods returned to establishment and be designated RETURNED-GOODS RECEIVING CLERK (clerical). May receive unsold products returned by DRIVER, SALES ROUTE (ret. tr.; whole. tr.) and be designated ROUTE RETURNER (clerical).

SIGN WRITER, HAND (any ind.) card writer, hand; 970.281-022
show-card writer

Writes, paints, or prints signs or showcards used for display or other purposes, using brushes. May cut out letters and signs for display purposes from wallboard or cardboard, by hand or machines, such as electrically powered jigsaw or bandsaw.

SMALL-ENGINE MECHANIC (any ind.) 625.281-034

Repairs fractional-horsepower gasoline engines used to power lawnmowers, garden tractors, and similar machines, using handtools: Locates causes of trouble, dismantles engines, using handtools, and examines parts for defects. Replaces or repairs parts, such as rings and bearings, using handtools. Cleans and adjusts carburetor and magneto. Starts repaired engines and listens to sounds to test performance. Replaces engines on machine. May be designated according to type of engine repaired as LAWNMOWER MECHANIC (any ind.).

SOCIAL WORKER, MEDICAL (profess. & kin.) 195.107-030
social worker, clinical; social worker, health services

Aids patients and their families with personal and environmental difficulties which predispose illness or interfere with obtaining maximum benefits from medical care: Works in close collaboration with medical doctor and other members of health team to further their understanding of significant social and emotional factors underlying patient's health problem. Helps patient and family through individual or group conferences to understand, accept, and follow medical recommendations and provides service planned to restore patient to optimum social and health adjustment within patient's capacity. Utilizes resources, such as family and community agencies to assist patient to resume life in community or to learn to live within patient's disability. Participates in planning for improving health services by interpreting social factors pertinent to development of program. Provides general direction and supervision to workers engaged in clinic home service program activities. Employed in general hospitals, clinics, rehabilitation centers, or related health programs. May be employed as consultant in other agencies. Usually required to have knowledge and skill in casework methods acquired through degree program at school of social work.

SPLICER (photofinish) 976.684-026

Joins strips of undeveloped film and winds film onto reels for subsequent processing, using splicing device and bench winder: Places one roll of film on spindle and another at end of splicer. Positions ends of each roll in splicing device. Depresses pedal to trim ends and form joint, or perforates film, using hand punch. Depresses pedal to drive staples into ends of film, pushes switch to lower heat-sealing head over film ends, or applies adhesive tape over joint to splice film ends. Removes film from splicing device and winds film on reel, using bench winder. Places film in container. May cut 16 mm. film into 8 mm. strips before splicing and be designated SLITTER, PROCESSED FILM (photofinish.). May perform duties as described under GROUP LEADER (any ind.).

STATIONARY-ENGINEER SUPERVISOR (any ind.) 950.131-014
boilerhouse supervisor; station supervisor;
steam-station supervisor; watch engineer

Supervises and coordinates activities of STATIONARY ENGINEER (any ind.) and other workers operating and maintaining stationary engines and mechanical equipment, such as steam engines, air compressors, vacuum and centrifugal pumps, filters, turbines, boilers, and ventilating and refrigerating equipment. May supervise MAINTENANCE REPAIRER, FACTORY OR MILL (any ind.). Performs duties as described under SUPERVISOR (any ind.).

STOCK CLERK (see INVENTORY CLERK)

STOCK CLERK, GROCERY GOODS (see STOCK CLERK, SELF-SERVICE STORE)

STOCK CLERK, SELF-SERVICE STORE (ret. tr.) 299.367-014

Performs any combination of following duties in self-service store: Marks order form to order merchandise based on available shelf space, merchandise on hand, customer demand, or advertised specials. Periodically counts merchandise to take inventory or examines shelves to identify which items need to be reordered or replenished. Unpacks cartons and crates of merchandise, checking invoice against items received. Stamps or attaches prices on merchandise or changes price tags, referring to pricelist. Stocks shelves with new or transferred merchandise. Sets up advertising signs and displays merchandise on shelves, counters, or tables to attract customers and promote sales. Cleans display cases, shelves, and aisles. May itemize and total customer's selection at check out counter, using cash register, and make change or charge purchases. May pack customers purchases in bags or cartons. May carry packages to customer's automobile. May be designated according to type of merchandise handled as BAKED-GOODS STOCK CLERK (ret. tr.); DELICATESSEN-GOODS STOCK CLERK (ret. tr.); DISCOUNT-VARIETY-STORE STOCK CLERK (ret. tr.); GROCERY-GOODS STOCK CLERK (ret. tr.); LIQUOR-STORE STOCK CLERK (ret. tr.); MEAT STOCK CLERK (ret. tr.); PHARMACY STOCK CLERK (ret. tr.); PRODUCE STOCK CLERK (ret. tr.); or type of store worked in as SUPERMARKET STOCK CLERK (ret. tr.).

STOCK SUPERVISOR (clerical) manager, stockroom; 222.137-034
stockroom supervisor; storeroom supervisor;
warehouse supervisor

Supervises and coordinates activities of workers concerned with ordering, receiving, storing, inventorying, issuing, and shipping materials, supplies, tools, equipment, and parts, in stockroom, warehouse, or yard: Plans layout of stockroom, warehouse, and other storage areas, considering turnover, size, weight, and related factors of items stored. Advises employees on care and preservation of items received, stored, and shipped, methods and use of equipment in handling, storing, maintaining, and shipping stock, and related problems. Studies records and recommends remedial actions for reported nonusable, slow-moving, and excess stock. Reviews records for accuracy of information and compliance with established procedures, and to determine adequacy of stock levels. Schedules work for special and periodic inventories.

Traces history of items to determine reasons for discrepancies between inventory and stock-control records and recommends remedial actions to resolve discrepancies. Performs other duties as described under SUPERVISOR (clerical). May supervise and coordinate activities of workers engaged in handling merchandise in stockroom or warehouse of retail store and be known as HEAD OF STOCK (ret. tr.).

STOCKER (see STOCK CLERK-SELF SERVICE)

STRIPPER, PAINT (see CONSTRUCTION WORKER I)

SUPERINTENDENT, PLANT PROTECTION (any ind.) 189.167-050
protection chief, industrial plant; security manager

Directs personnel involved in establishing, promoting, and maintaining firm's security and property-protection programs: Establishes and supervises through subordinates, operational procedures for activities, such as fire prevention and firefighting, traffic control, guarding and patroling physical property, orienting and monitoring of personnel involved with classified information, and investigation of accidents and criminal acts. Confers with representatives of management to formulate policies, determine need for programs, and coordinate programs with plant activities. Confers with representatives of local government to insure cooperation and coordination of plant activities with law enforcement and firefighting agencies. May direct activities of workers involved in industrial safety programs. May direct activities of workers engaged in performing building maintenance and janitorial services.

SUPERVISOR, CARPENTER (see CARPENTER-LABOR SUPERVISOR)

SUPERVISOR, COMPUTER OPERATIONS (clerical) 213.132-010
chief console operator; senior console operator; supervisor, data processing; supervisor, electronic-data processing

Supervises and coordinates activities of workers engaged in operating electronic data-processing machines and operates computer system to test new or revised programs: Assigns personnel and schedules work-flow to facilitate production. Directs training or trains personnel in operation of computers and peripheral and off-line auxiliary equipment. Confers with programming personnel and operates computer system to test new and revised programs. Develops operating methods to process data, such as devising wiring diagrams for peripheral equipment control panels, and making minor changes in canned (standardized) programs or routines to modify output content or format. Directs insertion of program instructions and input data into computer, and observes operations. Operates computers to assist operators in locating and overcoming error conditions. Makes minor program and input data revisions through computer console to maintain operations. Notifies programming and maintenance personnel if unable to locate and correct cause of error or failure. Revises operating schedule to adjust for delays. Prepares or reviews records and reports of production, operating, and down time. Recommends changes in programs, routines, and quality control standards. Consults with MANAGER, ELECTRONIC DATA PROCESSING (profess. & kin.) about problems, such as including new program testing and operating runs in schedule and arranging for preventive maintenance time. Coordinates flow of work between shifts to insure continuity. May supervise personnel engaged in keypunching, data typing, and tabulating (SUPERVISOR, MACHINE-RECORDS UNIT, clerical). Performs duties as described under SUPERVISOR (clerical).

SUPERVISOR, EDP (see SUPERVISOR, COMPUTER OPERATIONS)

SUPERVISOR, FOOD-SERVICE (see FOOD-SERVICE SUPERVISOR)

SUPERVISOR, LAUNDRY (laund.) 361.137-010

Supervises and coordinates activities of workers engaged in receiving, marking, washing, and ironing clothes or linen in laundry: Determines sequence in which flatwork, one-day service, and white and colored work are to be scheduled through laundry to provide quick and efficient service to customers and to regulate workloads. Inspects laundered articles. Investigates and resolves customer complaints of unsatisfactory work or bundle shortage. Studies literature of launderers' and dry cleaners' associations, and confers with salespersons to obtain information on new or improved work methods and equipment. Performs other duties as described under SUPERVISOR (any ind.). May be designated according to activity supervised as FLATWORK SUPERVISOR (laund.); LAUNDRY-MARKER SUPERVISOR (laund.); RECEIVING, MARKING, AND WASHING SUPERVISOR (laund.); SHIRT-IRONER SUPERVISOR (laund.); SORTING-AND-FOLDING SUPERVISOR (laund.); WASHROOM SUPERVISOR (laund.).

SUPERVISOR, ROUTE SALES-DELIVERY DRIVERS 292.137-014
(ret. tr.; whole. tr.) dispatcher, route sales-delivery drivers; route supervisor

Supervises and coordinates activities of DRIVERS, SALES ROUTE (ret. tr.; whole. tr.) engaged in selling and distributing products or services: Plans routes and schedules drivers, vehicles, and deliveries and pickups based on driver, company, and customer information. Records drivers' attendance and time for payroll records. Informs DRIVERS, SALES ROUTE (ret. tr.; whole. tr.) of location of accounts and of collection procedures. Demonstrates methods of salesmanship. Oversees loading and dispatching of trucks. May collect overdue payments. May collect daily cash receipts from drivers and record amounts in records. May solicit new accounts. May investigate customer complaints and pay claims for damaged articles. May drive vehicle to designated areas. May load vehicles. May compute payroll and distribute pay to subordinates. Performs other duties as described under SUPERVISOR (any ind.). May be designated according to product sold as SUPERVISOR, NEWSPAPER DELIVERIES (whole. tr.)

SUPERVISOR, MATERIAL HANDLING (see MATERIAL-HANDLER SUPERVISOR)

SUPPLY SERVICE WORKER, MED. (see FOOD ASSEMBLER, KITCHEN)

SURGERY, CLERK (see WARD CLERK)

SURVEYOR HELPER (any ind.) 869.567-010

Performs any of following duties to assist in surveying land: Holds level or stadia rod at designated points to assist in determining elevations and laying out stakes for mapmaking, construction, mining, land, and other surveys. Calls out reading or writes station number and reading in notebook. Marks points of measurement with elevation, station number, or other identifying mark. Measures distance between survey points, using steel or cloth tape or surveyor's chain. Marks measuring points with keel (marking crayon), paint sticks, scratches, tacks, or stakes. Places stakes at designated points and drives them into ground at specified elevation, using hammer or hatchet. Cuts and clears brush and trees from line of survey, using brush hook, knife, ax, or other cutting tools. May perform duties as directed by LAND SURVEYOR (profess. & kin.) or SURVEYOR ASSISTANT, INSTRUMENTS (profess. & kin.). May perform one operation and be designated accordingly as BRUSH CLEARER, SURVEYING (any ind.); STAKER, SURVEYING (any ind.); SURVEYOR HELPER, CHAIN (any ind.); SURVEYOR HELPER, ROD (any ind.).

SWITCHBOARD OPERATOR (see TELEPHONE OPERATOR)

TAXI DRIVER (motor trans.) cab driver 913.463-018

Drives taxicab to transport passengers for fee: Picks up passengers in response to radio or telephone relayed request for service: Collects fee recorded on taximeter based on mileage or time factor and records transaction on log. Reports by radio or telephone to TAXICAB STARTER (motor trans.) on completion of trip. May drive limousine or custom-built sedan to pick up and discharge airport passengers arriving or leaving on scheduled flights and be designated CHAUFFEUR, AIRPORT LIMOUSINE (motor trans.).

TAXICAB STARTER (motor trans.) cab starter; 913.367-010
dispatcher

Dispatches taxicabs in response to telephone requests for service: Maintains operational map showing location of each cab. Contacts drivers of assigned sector by radio or telephone to relay request for service. Logs calls relayed to each driver and address of patron. Arranges for relief cab or driver.

TELEPHONE OPERATOR (clerical) control-board operator; 235.662-022
pbx operator; private-branch-exchange operator;
switchboard operator; telephone-switchboard operator

Operates cord or cordless switchboard to relay incoming, outgoing, and interoffice calls: On cordless switchboard, pushes switch keys to make connections and relay calls. On cord type equipment, plugs cord into switchboard jacks. May supply information to callers and record messages. May keep record of calls placed and toll charges. May perform clerical duties, such as typing, proofreading, and sorting mail. May operate system of bells or buzzers to call individuals in establishment to phone. May receive visitors, obtain name and nature of business, and schedule appointments (RECEPTIONIST, clerical).

TELEPHONE SOLICITOR (any ind.) telephone sales representative 299.357-014

Solicits orders for merchandise or services over telephone: Calls prospective customers to explain type of service or merchandise offered. Quotes prices and tries to persuade customer to buy, using prepared sales talk. Records names, addresses, purchases, and reactions of prospects solicited. Refers orders to other workers for filling. May develop lists of prospects from city and telephone directories. May transcribe data from order card to keypunch card, using vari-punch machine. May type report periodically on sales activities, using typewriter. May contact DRIVER, SALES ROUTE (ret. tr.; whole. tr.) to arrange delivery of merchandise.

TELLER (finan. inst.) general teller 211.362-018

Receives and pays out money, and keeps records of money and negotiable instruments involved in various banking and other financial transactions, performing any combination of following tasks: Receives checks and cash for deposit, verifies amounts, and examines checks for endorsements. Enters deposits in depositors' passbooks or issues receipts. Cashes checks and pays out money upon verification of signatures and customer balances. Places holds on accounts for uncollected funds. Orders supply of cash to meet daily needs, counts incoming cash, and prepares cash for shipment. May compute service charges, file checks, and accept utility bill payments. May photograph records, using microfilming device. May operate various office machines. May sell domestic exchange, travelers' checks, and savings bonds. May be designated according to type of transactions handled as TELLER, MAIL CREDIT (finan. inst.); TELLER PAYING AND RECEIVING (finan. inst.); TELLER, RETURN ITEMS (finan. inst.); TELLER, SAVINGS (finan. inst.); TELLER, SPECIAL DEPOSITS (finan. inst.).

TELLER, HEAD (finan. inst.) 211.132-010

Supervises and coordinates activities of workers engaged in receiving and paying out money and keeping records of transactions in banks and similar financial institutions: Assigns duties and work schedules to workers to insure efficient functioning of department. Trains employees in customer service and banking procedures. Approves checks for payment. Adjusts customer complaints. Examines TELLERS (finan. inst.) reports of daily transactions for accuracy. Consolidates and balances reports, using adding machine. Insures supply of money for bank's needs based on legal requirements and business demand. May be designated according to transactions involved as TELLER, COLLECTION AND EXCHANGE, HEAD (finan. inst.); TELLER, FOREIGN EXCHANGE, HEAD (finan. inst.); TELLER, NOTE, HEAD (finan. inst.); TELLER, PAYING AND RECEIVING, HEAD (finan. inst.); TELLER, SAVINGS, HEAD (finan. inst.). Performs other duties as described under SUPERVISION (clerical).

TOOL-AND-DIE MAKER (mach. shop) 601.280-046

Analyzes specifications, lays out metal stock, sets up and operates machine tools, and fits and assembles parts to make and repair metal-working dies, cutting tools, jigs and fixtures, gages, and machinists' handtools, applying knowledge of tool and die designs and construction, shop mathematics, metal properties, and layout, machining, and assembly procedures: Studies specifications, such as blueprints, sketches, models, or descriptions, and visualizes product. Computes dimensions and plans layout and assembly operations. Measures, marks, and scribes metal stock for machining (LAY-OUT WORKER, mach. shop). Sets up and operates machine tools, such as lathe, milling machine, shaper, and grinder, to machine parts, and verifies conformance of machined parts to specifications (TOOL-MACHINE SET-UP OPERATOR, mach. shop). Lifts machined parts manually or using hoist, and positions and holds them on surface plate or worktable, using devices, such as vises, V-blocks, and angle plates. Smooths flat and contoured surfaces, using scrapers, abrasive stones, and power grinders, and fits and assembles parts into assemblies or mechanisms. Verifies dimensions, alinements, and clearances, using measuring instruments, such as dial indicators, gage blocks, thickness gages, and micrometers. Dowels and bolts parts together, using handtools, such as hammers and wrenches. May connect wiring and hydraulic lines to install electric and hydraulic components. May heattreat tools or parts (HEAT TREATER, heat treat II). May examine standard or previously used tools or dies and decide on modifications to be made. May develop specifications from general descriptions and make drawing or sketch of product. May specialize in repair work and be designated TOOL-AND-DIE REPAIRER (mach. shop).

TRANSCRIBING-MACHINE OPERATOR (clerical) dictating-machine transcriber; dictating-machine typist 203.582-058

Operates typewriter to transcribe letters, reports, or other recorded data heard through earphones of transcribing (voice reproducing) machine: Positions record or tape on machine spindle and sets needle on record, or threads tape through machine. Depresses pedal to rotate record or tape. Turns dials to control volume, tone, and speed of voice reproduction. Types message heard through earphones. Reads chart prepared by dictator to determine length of message and corrections to be made. May type unrecorded information, such as name, address, and date. May keep file of records. May condition records for reuse, using wax-shaving attachment. May receive and route callers (RECEPTIONIST, clerical). Important variations are kinds (trade names) of transcribing machines used. May be designated by subject matter transcribed as LEGAL TRANSCRIBER (clerical); MEDICAL TRANSCRIBER (clerical).

TRANSIT CLERK (finan. inst.) 217.382-014

Operates machine to sort, record, and prove transit items on out-of-city banks to insure correct routing and prompt collection: Sorts items, such as checks, drafts, and credit letters, according to drawee bank, endorsing items manually or by machine. Inspects checks over a specified amount for regularity to note endorsers, or to determine if uncollected funds shall be held. Operates transit machine to list and total items to be collected from correspondent banks and Federal Reserve bank. Duplicates transit letters, outgoing checks, and machine tapes, using photocopying machine, to keep record of all transit items and their destination. Lists transit items, using adding machine or calculator. Compares total on list with total on proof machine to prove daily transactions.

TRUCK DRIVER (agric deliveries) (see TRUCK DRIVER, LIGHT)

TRUCK DRIVER (bldg mat) (see TRUCK DRIVER, HEAVY)

TRUCK DRIVER, HEAVY (any ind.) 905.663-014

Drives truck with capacity of more than 3 tons, performing duties similar to those of TRUCK DRIVER, LIGHT (any ind.): May position blocks and tie rope around items to secure cargo during transit. When driving truck equipped for specific purposes, such as fighting fires, digging holes, and installing and repairing utility company lines, may be designated FIRE-TRUCK DRIVER (petrol. production); HOLE-DIGGER-TRUCK DRIVER (light, heat, & power; tel. & tel.); TOWER-TRUCK DRIVER (light, heat, & power; tel. & tel.). When specializing in making deliveries may be designated DELIVERY-TRUCK DRIVER, HEAVY (any ind.). May be designated according to type of truck driven as TRUCK DRIVER, FLATBED (logging). May be designated according to kind of cargo transported as WATER HAULER (logging).

TRUCK DRIVER, LIGHT (any ind.) 906.683-022

Drives truck with capacity under 3 tons to transport materials in liquid or packaged form and personnel to and from specified destinations, such as railroad stations, plants, residences, offices, or within industrial yards: Verifies load against shipping papers. Drives truck to destination, applying knowledge of commercial driving regulations and roads in area. Prepares receipts for load picked up. Collects payment for goods delivered and for delivery charges. May maintain truck log according to state and federal regulations. May maintain telephone or radio contact with supervisor to receive delivery instructions. May drive truck equipped with public address system through city streets to broadcast announcements over system for advertising or publicity purposes. May load and unload truck. May inspect truck equipment and supplies such as tires, lights, brakes, gas, oil, and water. May perform emergency roadside repairs, such as changing tires, installing light bulbs, fuses, tire chains, and spark plugs. May be designated according to type of activity as CREW-TRUCK DRIVER (any ind.); INSECT SPRAYER, MOBILE UNIT (gov. ser.); MAIL-TRUCK DRIVER (any ind.); MOTOR-VEHICLE-ESCORT DRIVER (bus. ser.); PICK-UP DRIVER (motor trans.); SERVICE-PARTS DRIVER (auto. ser.); SPRINKLER-TRUCK DRIVER (any ind.).

TYPING SECTION CHIEF (clerical) 203.137-014

Supervises and coordinates activities of TYPISTS (clerical) engaged in transcribing correspondence from longhand copy, typing reports, and making duplicate copies of correspondence. Performs duties as described under SUPERVISOR (clerical).

UTILITY WORKER (const.) (see MATERIAL HANDLER)

VETERAN'S JOB DEVELOPER (see EMPLOYMENT INTERVIEWER)

VICE PRESIDENT (any ind.) 189.117-034

Directs and coordinates activities of one or more departments, such as engineering, operations, or sales, or major division of business organization, and aids chief administrative officer in formulating and administering organization policies: Participates in formulating and administering company policies and developing long range goals and objectives. Directs and coordinates activities of department or division, for which responsibility is delegated to further attainment of goals and objectives. Reviews analyses of activities, costs, operations, and forecast data to determine department or division progress toward stated goals and objectives. Confers with chief administrative officer and other administrative personnel to review achievements and discuss required changes in goals or objectives resulting from current status and conditions. May perform duties of PRESIDENT (any ind.) during absence. May serve as member of management committees on special studies.

VICE PRESIDENT, FINANCIAL INSTITUTION (finan. inst.) 186.117-078

Directs and coordinates activities of regional office, branch office, administrative division, department, or specific function of financial institution, such as savings and loan association, bank, trust company, morigage banking company, or national finance company, acting under authority and responsibility delegated by corporate executive officer: Coordinates assigned program activities, determines methods and procedures for carrying out program and assists in interpreting policies and practices. Approves and grants lines of credit or loans to customers within prescribed limitations. Conducts management studies, prepares workload and budget estimates for specified or assigned operations, analyzes operational reports, and submits activity reports. Develops and recommends plans for expansion of existing programs, operations, and financial activities. Solicits new business and participates in community or other service programs to develop goodwill. May be designated according to type of financial institution as VICE PRESIDENT, BANK (finan. inst.); VICE PRESIDENT, FINANCIAL SERVICES COMPANY (finan. inst.); VICE PRESIDENT, MORTGAGE BANKING COMPANY (finan. inst.); VICE PRESIDENT, SAVINGS-AND-LOAN ASSOCIATION (finan. inst.); VICE PRESIDENT, TRUST COMPANY (finan. inst.).

VISUAL AID (see MOTION PICTURE PROJECTIONIST)

WARD CLERK (medical ser.) floor clerk 245.362-014

Prepares and compiles records in hospital nursing unit, such as obstetrics, pediatrics, or surgery: Records name of patient, address, and name of attending physician to prepare medical records on new patients. Copies information, such as patient's temperature, pulse rate, and blood pressure from nurses' records onto patient's medical records. Records diet instructions. Keeps file of medical records on patients in unit. Prepares notice of patient's discharge to inform business office. Requisitions supplies designated by nursing staff. Answers telephone and relays messages to patients and medical staff. Directs visitors to patients' rooms. Distributes mail, newspapers, and flowers to patients. May compile census of patients. May assist in patient care and services, such as dressing and feeding patient. May keep record of absences and hours worked by unit personnel.

WELDER, COMBINATION (welding) 819.384-010

Welds metal components together to fabricate or repair products, such as machine parts, plant equipment, mobile homes, motors, and generators, according to layouts, blueprints, or work orders, using brazing and variety of arc and gas welding equipment: Welds metal parts together, using both gas welding (WELDER, GAS, welding) or brazing (BRAZER, ASSEMBLER, welding) and any combination of arc welding processes (WELDER, ARC, welding). Performs related tasks, such as thermal cutting and grinding. Repairs broken or cracked parts, fills holes, and increases size of metal parts. Positions and clamps together components of fabricated metal products preparatory to welding. May locate and repair cracks in industrial engine cylinder heads, using inspection equipment and gas torch, and be designated REPAIRER, CYLINDER HEADS (welding). May perform repairs only, and be designated WELDER, REPAIR (welding). May be required to pass employer performance tests or standard tests to meet certification standards of governmental agencies or professional and technical associations.

WELDER-FITTER (also, see WELDER, COMBINATION) 819.361-010

Lays out, fits, and welds fabricated, cast, and forged components to assemble structural forms, such as machinery frames, tanks, pressure vessels, furnace shells, and building and bridge parts, according to blueprints and knowledge of welding and metallurgy: Selects equipment and plans layout, assembly, and welding, applying knowledge of geometry, physical properties of metal machining weld shrinkage, and welding techniques. Lays out, positions, alines, and fits components together. Bolts, clamps, and tack-welds parts to secure in position for welding (WELDER, TACK, welding). Sets up equipment and welds parts, using arc, gas-shielded arc, submerged arc, or gas welding equipment (WELDER, COMBINATION, welding). May assemble parts by bolting and riveting. May repair products by dismantling, straightening, reshaping, and reassembling parts, using cutting torch, straightening press, and handtools, and be designated WELDER, STRUCTURAL REPAIR (welding). May specialize in using one welding process and be designated WELDER-FITTER, ARC (welding); WELDER-FITTER, GAS (welding). May specialize in fitting and welding components of metal tools, dies, and fixtures and be designated WELDER, TOOL AND DIE (welding).

WELDER HELPER (also, see WELDER, COMBINATION) 819.687-014

Performs any combination of following duties to assist workers in welding, brazing, and thermal and arc cutting activities: Moves workpieces, tools, and supplies, manually or by handtruck. Lifts, moves and holds, or clamps workpieces to table, into jigs, or into position as directed, manually or by using hoist, pry bars, wrenches, hammer, and wedges. Cleans workpieces to remove impurities, such as slag, rust, and greases, using wire brush, portable grinder, hand scraper, or chemical solutions. Connects hoses from hand torch to oxygen and fuel gas cylinders or connects cables from power source to electrode holder and workpiece or fixture. Starts gasoline engine to activate electric generators. Places workpieces into furnace to preheat for specified time. Removes, tags or marks, and moves finished work. May attach grappling equipment to objects preparatory to movement by crane. May be designated according to type of activity as THERMAL-CUTTER HELPER (welding).

APPENDIX B-4

BIBLIOGRAPHY

BIBLIOGRAPHY

ASSESSMENT OF OCCUPATIONAL OPPORTUNITIES FOR THE PHYSICALLY HANDICAPPED IN VOCATIONAL EDUCATION

In recent years numerous articles, journals, monography, bulletins, books, and research projects have been written about the physically handicapped and education. Others relate to employment, architecture, and legislation.

Searches for these materials were conducted manually as well as with the following computer resources:

(1) ERIC (which searches educational journals and government publications in education)

(2) NTIS (National Technical Information Service which searches publications from 250 governmental agencies such as NASA, NEW, DOD, DOT, NSF, and others)

(3) CIS (Congressional Information Services and American Statistical Index, which indexes publications such as legislation, federal law, and other governmental issues)

Also, searches were made in BOOKS IN PRINT and the University of Kentucky King Library card catalog for references in the main library as well as in the Education Library, Law, Architecture, Business and Economics, and Medical Center Libraries.

The current bibliography contains 210 entries; annotations were added to make it easier for the user to review a summary of the item to justify searching further. The master list is simply a listing of the entries numbered consecutively; additional entries may be made at any time without retyping the list.

The entries have been categorized so that the bibliography can be referred to quickly; the bibliography is not intended to be a universal one--it contains only those entries that refer to topics of concern with this project.

A coding system was devised for identification of each entry by special categories; the following example illustrates the use of each part of the code number:

123	Number of Entry
VI	Type of Impairment (Code Table 1)
DE	Vocational Program Area (Code Table 2)
PS	Educational Unit (Code Table 3)
	Other Codes (Code Table 4)

CODE TABLE 1

Coding	Type of Impairment
HI	Hearing Impaired
VI	Visually Impaired
HV	Hearing and Visually Impaired
SI	Speech Impaired
OI	Orthopedically Impaired
NN	Neurologically/Neuromuscularly Impaired
OH	Other Health Impaired

CODE TABLE 2

Coding	Vocational Program Area
AG	Agribusiness
BO	Business and Office
DE	Distributive Education (Marketing)
GV	General Vocational Education
HE	Home Economics
HP	Health and Personal Services
IE	Industrial Education
PB	Public Service
SV	Special Vocational Educaton

CODE TABLE 3

Coding	Educational Unit
S	Secondary School
PS	Post-Secondary School
R	Rehabilitation Center
M	Miscellaneous
C	College

CODE TABLE 4

Coding	Other Areas
Gen	General
Leg	Legislation
Emp	Employment
Arc	Architectural

BIBLIOGRAPHY: ALPHABETIC ORDER

Entry	Author/Title
100	Abbas
18	Adelman
25	Agan
191	Anderson
202	"The Architectural Barrier..."
148	Barnhart
206	Bayne
22	Beckman
63	Blaxter
105	Bowe
88	Branch
133	Brandon
38	Brandt
16	Brenton
94	Brock
118	Buontempo
143	Buckridge
183	Burnett
187	Caddel
43	Call
146	Campbell
163	Casey
156	"CEC Selected..."
69	Chicago, "The La Grange..."
15	Cleland
36	Clelland
158	"Consumer Participation..."
104	Corley
154	Cortes
209	Cox
65	Crammatte
42	Cruickshank
41	Cull
178	"
142	Demond
89	DePaolo
164	Dillman
99	Drawbaugh
150	Dunn

Entry	Author/Title
66	DuPont
194	Dykes
11	Eads
31	Edgington
155	"Educational Aids..."
77	Elgeman
57	"Employment of the Physically..."
203	"Enforcement Office Says..."
140	"Establishment of a Vocational..."
159	Etler
76	"Evaluating Programs..."
110	"Evaluation Design..."
84	"Evaluation Report..."
195	"Federal Register"
190	Feingold
126	"Final Report of the Evaluation..."
86	"Final Report of a 5-Year..."
109	Foster
169	"
166	Franklin
123	Fry
114	Fusco
173	Gardner
198	Garrett
19	Geis
20	Gellman
90	Gershman
4	Godla
48	Goldsmith
6	Grace
201	Grigg
68	Groves
113	"A Guidance Manual..."
136	"Guidelines for a Cooperative..."
3	Halloran

Entry	Author/Title
131	"Handbook for Evaluating..."
55	"Handicapped Students..."
80	Harolow
75	Harvey
56	Heath
74	"1976 High School Follow-Up..."
97	Hinrichs
59	Hamza
149	Hurwitz
47	Jeffrey
117	Jernberg
197	Johnstone
144	Jones, Mona
184	Jones, Ron
157	Kafafian
72	Kansas, "Special Education..."
111	Kelley
81	Kemp
186	Kirk, Larry B.
26	Kirk, Samuel A.
58	Klinger
87	Klapper
13	Knoll
115	Lambert
121	Lane
181	Larkin
46	Laurie
24	Levitan
62	"
205	Licht
188	"Lincoln Land..."
151	Lobes
10	Lockard
128	Love, Don
134	Love, Harold D.
175	" "
107	Low
92	Ludwig
60	Mall
30	Marks
182	Martin, Edwin W.
192	Martin, M.J.
64	Massie
96	Matlisky
40	May
44	"

Entry	Author/Title
130	McKinlay
70	McQuillen
137	Means
176	Meyerson
102	Miller
127	Mossman
21	Nagi
160	"National Conference..."
27	Neff
32	Nix
51	Ober
1	O'Neill
12	Orelove
82	Overs
177	Pahz
23	Pati
119	Peters
54	Peterson
207	Phelps, F. Allen
34	Phelps, L. Allen
165	" "
147	"Placement of the..."
122	"Planning Facilities..."
14	Porteous
17	Porter
71	Portland, "A Planning Study..."
196	"Pre-Employment..."
85	Prisuta
168	"Proceedings of the Annual..."
162	"Program Resources..."
125	"Project MODEL..."
129	" "
170	"Project Volunteer..."
78	Quanty
200	"Rehabilitation for Independent..."
153	"Rehabilitation of the Handicapped..."
210	"Rehabilitation of the Physically..."
101	Retzlaff
52	Richardson
106	Robinault
67	Robinson
208	Roman
5	Rosenberg
53	"
108	Rosenbrier

Entry	Author/Title
189	Rusalem
179	Rusk
35	Safilios-Rothschild
2	Sarandoulias
7	Schwab
8	Selling
141	"Services for Children..."
116	Shworles
37	Splaver
45	Spungin
167	Staats
139	"Status 1968..."
95	Stevenson
39	Stick
93	"A Study..."
50	"T & I for the Handicapped..."
73	Tarr
79	Tatham
103	Tesolowski
9	Thoben
28	Tuckey
204	Turnbull

Entry	Author/Title
61	"Twenty-five Years of Volunteers..."
161	"Twenty-five Years of Volunteers..."
112	"Vocational Education: A Manual..."
145	"Vocational Education for Persons..."
132	"Vocational Readiness..."
83	"Vocational Rehabilitation..."
91	"The Vocational Status..."
180	Walker
199	Wallin
49	Weintraub
185	Whighan
120	White
152	Wilson
171	"
172	"
174	"
124	"Work Study Program..."
29	Wright, George N.
98	Wright, Jerauld B.
33	Yates
138	Young
193	Yuker

BIBLIOGRAPHY: IMPAIRMENTS

Hearing Impaired (HI)

Entry	Author/Title
22	Beckman
32	Nix
33	Yates
65	Crammatte
78	Quanty
79	Tatham
80	Harlow
85	Prisuta
89	DePaolo
130	McKinlay
149	Hurwitz
166	Franklin
177	Pahz

Visually Impaired (VI)

Entry	Author/Title
17	Porter
45	Spungin
71	Portland
85	Prisuta
93	"A Study of the Vocational..."
122	"Planning Facilities..."
148	"Placement..."
155	"Educational Aids..."
156	"CEC Selected..."
158	"Consumer Participation..."
159	Etler
160	"National Conference..."
164	Dillman
166	Franklin
187	Caddel
188	"Lincoln Lane...."

BIBLIOGRAPHY: IMPAIRMENTS

Speech Impaired

Entry	Author/Title
85	Prisuta
122	Planning Facilities..."

Orthopedically Impaired

Entry	Author/Title
57	Richardson
110	"An Evaluation Design..."
114	Fusco
122	"Planning Facilities..."
157	Kafafian
187	Caddel

BIBLIOGRAPHY: IMPAIRMENTS

Neurologically and Neuromuscularly Impaired

Entry	Author/Title
30	Marks
31	Edgington
141	"Services for Children..."
194	Dykes

Other Health Impaired

Entry	Author/Title
6	Grace

BIBLIOGRAPHY: NO IMPAIRMENT

Entry	Author/Title
1	O'Neill
2	Sarandoulias
3	Halloran
4	Godla
5	Rosenberg
7	Schwab
8	Selling
9	Thoben
10	Lockard
11	Eads
12	Orelove
13	Knoll
14	Porteous
15	Cleland
16	Brenton
18	Adleman
19	Geis
20	Gellman
21	Nagi
23	Pati
24	Levitan
25	Agan
26	Kirk, Samuel A.
27	Neff
28	Tuckey
29	Wright, George N.
34	Phelps, L. Allen
35	Safilios-Rothschild
36	Clelland
37	Splaver
38	Brandt
39	Stick
40	May
41	Cull
42	Cruickshank
43	Call
44	May
46	Laurie
47	Jeffrey
48	Goldsmith
49	Weintraub

Entry	Author/Title
50	"T & I for the Handicapped..."
51	Ober
53	Rosenberg
54	Peterson
55	"Handicapped Students..."
56	Heath
57	"Employment of the Physically..."
58	Klinger
59	Hamza
60	Hall
61	"Twenty-five Years..."
62	Levitan
63	Blaxter
64	Massie
66	DuPont
67	Robinson
68	Groves
69	Chicago, "The La Grange..."
70	McQuillen
72	Kansas, "Special Education..."
73	Farr
74	"1976 High School..."
75	Harvey
76	"Evaluating Programs..."
77	Elgeman
81	Kemp
82	Overs
83	"Vocational Rehabilitation..."
84	"Evaluation Report..."
86	"Final Report of a 5-Year..."
87	Klapper
88	Branch
90	Gershman
91	"The Vocational Status..."
92	Ludwig
94	Brock

No Impairment Continued:

Entry	Author/Title
95	Stevenson
96	Matilsky
97	Hinrichs
98	Wright, Jerauld B.
99	Drabaugh
100	Abbas
101	Retzlaff
102	Miller
103	Tesolowski
104	Corley
105	Bowe
106	Robinault
107	Low
108	Rosenkeier
109	Foster
111	Kelley
112	"Vocational Education: A Manual..."
113	"A Guidance Manual..."
115	Lambert
116	Shworles
117	Jernberg
118	Buontempo
119	Peters
120	White
121	Lane
123	Fry
124	"Work-Study..."
125	"Project MODEL..."
126	"Final Report..."
127	Mossman
128	Love, Don
129	"Project MODEL..."
131	"Handbook for Evaluating..."
132	"Vocational Readiness..."
133	Brandon
134	Love, Harold D.
135	"Status 1968..."
136	"Guidelines for a Cooperative..."
137	Means
138	Young
139	Stark
140	
140	"Establishment of a Vocational..."
142	Dewond

Entry	Author/Title
143	Buckridge
144	Jones, Mona
145	"Vocational Education for Persons..."
146	Campbell
147	"Placement of the..."
150	Dunn
151	Lobes
152	Wilson
153	"Rehabilitation of the Handicapped..."
154	Cortes
161	"Twenty-Five Years..."
162	"Program Resources..."
163	Casey
165	Phelps, L. Allen
167	Staats
168	"Proceedings of the Annual..."
169	Foster
170	"Project Volunteer..."
171	Wilson
172	Wilson
173	Gardner
174	Wilson
175	Love, Harold D.
176	Meyerson
178	Cull
179	Rusk
180	Walker
181	Larkin
182	Martin, Edwin W.
183	Burnett
184	Jones, Ron
185	Whigham
186	Kirk, Larry B.
189	Rusalem
190	Feingold
191	Anderson
192	Martin, M.J.
193	Yuker
195	"Federal Register..."
196	"Pre-Employment..."
197	Johnstone
198	Garrett
199	Wallin

No Impairment Continued:

Entry	Author/Title	Entry	Author/Title
200	"Rehabilitation for Independent..."	205	Licht
		206	Bayne
201	Grigg	207	Phelps, T. Allen
202	"The Architectural Barrier..."	208	Homan
		209	Cox
203	"Enforcement Officer..."	210	"Rehabilitation of the Physically..."
204	Turnbull		

***No Readings were found that related to the program area of Hearing and Visually Impaired

BIBLIOGRAPHY: BUSINESS AND OFFICE (BO)*

Entry	Author/Title	Entry	Author/Title
5	Rosenberg	55	"Handicapped Students..."
38	Brandt	159	Etler
51	Ober	192	Martin, M.J.
52	Richardson	209	Cox
53	Rosenberg		

*No Readings were found that related to the program areas of:

- Agribusiness
- Distributive Education (Marketing)
- Health and Personal Services
- Public Service

BIBLIOGRAPHY: HOME ECONOMICS (HE)

Entry	Author/Title	Entry	Author/Title
13	Knoll	58	Klinger
17	Porter	67	Robinson
40	May	200	"Rehabilitation for Independent..."
45	Call	210	"Rehabilitation of the Physically..."
44	May		

BIBLIOGRAPHY

INDUSTRIAL EDUCATION (IE)		SPECIAL VOCATIONAL EDUC. (SV)	
Entry	Author/Title	Entry	Author/Title
50	"T & I for the Handicapped..."	88	Branch
		127	Mossman

BIBLIOGRAPHY: GENERAL VOCATIONAL EDUCATION (GV)

Entry	Author/Title
2	Sarandoullias
7	Schwab
11	Eads
14	Porteous
34	Phelps, L. Allen
57	"Employment of the Physically..."
66	DuPont
73	Tarr
74	"1976 High School Follow-Up..."
76	"Evaluating Programs..."
77	Elgeman
78	Quanty
79	Tatham
80	Harlow
81	Kemp
82	Overs
83	"Vocational Rehabilitation Services..."
84	"Evaluation Report of the Workshop..."
86	"Final Report of a 5-year..."
90	Gershman
91	"The Vocational Status..."
93	"A Study of the Vocational..."
94	Brock
95	Stevenson
96	Matilsky
97	Hinrichs
98	Wright, Jerauld R.
99	Drawbaugh
100	Abbas
102	Miller
105	Rowe
106	Robinault
110	"An Evaluation Design..."
111	Kelley

Entry	Author/Title
112	"Vocational Education: A Manual..."
113	"A Guidance Manual..."
115	Lambert
116	Shworles
117	Jernberg
118	Buontempo
119	Peters
120	White
121	Lane
122	"Planning Facilities..."
124	"Work-Study Program..."
125	"Project MODEL..."
128	Love, Don
129	"Project MODEL..."
131	"Handbook for Evaluating..."
132	"Vocational Readiness..."
133	Brandon
136	"Guidelines for a Cooperative..."
137	Means
138	Young
140	"Establishment of a Vocational..."
144	Jones, Mona
145	"Vocational Education for Persons..."
146	Campbell
155	"Educational Aids..."
163	Casey
164	Dillman
165	Phelps, L. Allen
167	Staats
171	Wilson
172	Wilson
173	Gardner
174	Wilson
187	Caddel
196	"Pre-Employment..."
207	Phelps, L. Allen

BIBLIOGRAPHY: SECONDARY SCHOOL (S)

Entry	Author/Title
1	O'Neill
2	Sarandoullias
5	Rosenberg
17	Porter
18	Adelman
27	Neff
33	Yates
34	Phelps, L. Allen
38	Brandt
51	Ober
52	Richardson
53	Rosenberg
64	Massie
68	Groves
72	Kansas, "Special Education..."
73	Tarr
74	"1976 High School..."
75	Harvey
76	"Evaluating Programs..."
77	Elgeman
84	"Evaluation Report..."
85	Prisuta
86	"Final Report of a 5-Year..."
87	Klapper
88	Branch

Entry	Author/Title
89	DePaolo
90	Gershman
101	Retzlaff
109	Foster
117	Jernberg
118	Buontempo
120	White
124	"Work-Study Program..."
126	"Final Report..."
127	Mossman
131	"Handbook for Evaluating..."
132	"Vocational Readiness..."
135	"Status 1968..."
137	Means
147	"Placement of the..."
155	"Educational Aids..."
156	"CEC Selected..."
159	Etler
162	"Program Resources..."
163	Casey
164	Dillman
169	Foster
175	Love, Harold D.
191	Anderson
209	Cox

BIBLIOGRAPHY: POST SECONDARY SCHOOL (PS)

Entry	Author/Title
2	Sarandoulias
4	Godla
5	Rosenberg
18	Adelman
38	Brandt
60	Hall
78	Quanty
79	Tatham
80	Harlow
81	Kemp
107	Low
108	Rosenbrier
111	Kelley
117	Jernberg
118	Buontempo
120	White
149	Hurwitz

BIBLIOGRAPHY: REHABILITATION CENTER (R)

Entry	Author/Title
6	Grace
8	Selling
13	Knoll
24	Levitan
35	Safilios-Rothschild
41	Cull
51	Ober
52	Richardson
53	Rosenberg
58	Klinger
59	Humza
60	Hall
62	Levitan
70	McQuillen
82	Overs
83	"Vocational Rehabilitation..."
87	Klapper
91	"The Vocational Status..."
106	Robinault
107	Low
119	Peters
121	Lane
123	Fry
136	"Guidelines for a Cooperative..."
138	Young
140	"Establishment of a..."
144	Jones, Mona
150	Dunn
152	Wilson
153	"Rehabilitation of the..."
154	Cortes
171	Wilson
172	Wilson
173	Gardner
179	Rusk
180	Walker
189	Rusalem
190	Feingold
198	Garrett
201	Grigg
210	"Rehabilitation of the Physically..."

BIBLIOGRAPHY: COLLEGE (C)

Entry	Author/Title
7	Schwab
55	"Handicapped Students Earn Credits..."
60	Hall
81	Kemp

Entry	Author/Title
112	"Vocational Education: A Manual..."
113	"A Guidance Manual"
128	Love, Don
180	"Lincoln Land..."

BIBLIOGRAPHY: GENERAL (GEN)

Entry	Author/Title
1	O'Neill
3	Halloran
4	Godla
10	Lockard
11	Eads
12	Orelove
13	Knoll
14	Porteous
15	Cleland
16	Brenton
17	Porter
18	Adleman
19	Geis
20	Gellman
26	Kirk, Samuel A.
27	Neff
29	Wright, George N.
30	Marks
31	Edgington
32	Nix
33	Yates
34	Phelps, L. Allen
35	Safilios-Rothschild
37	Splaver
38	Brandt
40	May
41	Cull
42	Cruickshank
43	Call
44	May
45	Spungin
46	Laurie
47	Jeffrey
50	"T & I for the Handicapped...."
51	Ober
54	Peterson
56	Heath
59	Hamza

Entry	Author/Title
60	Hall
62	Levitan
63	Blaxter
64	Massie
67	Robinson
68	Groves
69	Chicago, "The La Grange..."
70	McQuillen
72	Kansas, "Special Education Diagnostic..."
73	Farr
76	"Evaluating Programs..."
77	Elgeman
86	"Final Report of a 5 Year Collaborative..."
87	Klapper
90	Gershman
94	Brock
97	Hinrichs
98	Wright, Jerauld R.
99	Drawbaugh
100	Abbas
101	Retzlaff
102	Miller
103	Tesolowski
105	Bowe
106	Robinault
107	Low
108	Rosenbeier
109	Foster
111	Kelley
112	"Vocational Education: A Manual..."
114	Fusco
115	Lambert
116	Shworles
117	Jernberg
118	Buontempo
119	Peters

General Continued:

Entry	Author/Title
120	White
121	Lane
125	"Project MODEL..."
126	"Final Report..."
128	Love, Don
129	"Project MODEL..."
130	McKinlay
131	"Handbook for Evaluating..."
132	"Vocational Readiness.."
133	Brandon
134	Love, Harold D.
135	"Status 1968..."
136	"Guidelines for a Cooperative..."
137	Means
138	Young
139	Stark
140	"Establishment of a Vocational..."
143	Burkridge
144	Jones, Mona
145	"Vocational Education for Persons..."
146	Campbell
147	"Placement of the..."
150	Dunn
151	Fobes
152	Wilson
153	"Rehabilitation of the Handicapped..."
154	Cortes
161	"Twenty-five Years..."
162	"Program Resources..."
163	Casey
165	Phelps, L. Allen
167	Staats
168	"Proceedings of the Annual ..."
169	Foster
170	"Project Volunteer..."
171	Wilson
172	"
175	Love, Harold D.
176	Meyerson
178	Cull
179	Rusk
180	Walker
181	Larkin
182	Martin, Edwin W.
183	Burnett
184	Jones, Ron
185	Whigham
186	Kirk, Larry B.
187	Caddel
189	Rusalem
190	Feingold
191	Anderson
193	Yuker
194	Dykes
198	Garrett
200	"Rehabilitation for Independent..."
205	Licht
206	Bayne
207	Phelps, F. Allen
208	Roman
209	Cox
210	"Rehabilitation of the Physically..."

BIBLIOGRAPHY: LEGISLATION (LEG)

Entry	Author/Title
7	Schwab
22	Beckman
23	Pati
36	Clelland
39	Stick
46	Laurie
49	Weintraub
61	"Twenty-five years of Volunteers..."
66	DuPont
95	Stevenson
118	Buontempo
119	Peters
138	Young
153	"Rehabilitation of the Handicapped..."
178	Cull
186	Kirk, Larry B.
190	Feingold
195	"Federal Register..."
202	"The Architectural Barrier..."
203	"Enforcement Officer..."
204	Turnbull

BIBLIOGRAPHY: EMPLOYMENT (EMP)

Entry	Author/Title
2	Sarandoullas
5	Rosenberg
6	Grace
8	Selling
9	Thoben
12	Orelove
21	Nagi
23	Pati
24	Levitan
28	Tuckey
29	Wright, George N.
34	Phelps, L. Allen
35	Safilios-Rothschild
36	Clelland
55	"Handicapped Students..."
57	"Employment of the Physically..."
73	Tarr
74	"1976 High School Follow-Up..."
75	Harvey
78	Quanty
79	Tatham
80	Harlow
81	Kemp
82	Overs
83	"Vocational Rehabilitation Services..."
84	"Evaluation Report of the Workshop..."
85	Prisuta
86	"Final Report of a 5-Year..."
88	Branch
89	DePaolo
91	"The Vocational Status..."
196	"Pre-Employment Competencies"
92	Ludwig
93	"A Study..."
96	Matlisky
98	Wright, Jerauld B.
103	Tesolowski
108	Rosenbrier
109	Foster
113	"A Guidance Manual..."
116	Simorles
117	Jernberg
118	Buontempo
119	Peters
123	Fry
124	"Work-Study Program..."
125	"Project MODEL..."
126	"Final Report..."
127	Mossman
128	Love, Don
129	"Project MODEL..."
130	McKinlay
132	"Vocational Readiness..."
137	Means
140	"Establishment of a..."
149	Barnhart
150	Dunn
168	"Proceedings of the Annual..."
170	"Project Volunteer Power..."
171	Wilson
172	Wilson
173	Gardner
174	Wilson
179	Rusk
180	Walker
184	Jones, Ron
185	Whigham
188	"Lincoln Land..."
189	Rusalem
201	Grigg

BIBLIOGRAPHY: ARCHITECTURE (ARC)

Entry	Author/Title
23	Pati
25	Ayan
46	Laurie
47	Jeffrey
48	Goldsmith
58	Klinger
104	Corley
108	Rosenbrier
109	Foster
111	Kelley
113	"A Guidance Manual..."
122	"Planning Facilities..."
168	"Proceeding of the..."
175	Love, Harold D.
186	Kirk, Larry B.
194	Dykes
197	Johnstone
202	"The Architectural Barrier..."

BIBLIOGRAPHY: MISCELLANEOUS (M)

Entry	Author/Title
10	Lockard
11	Lads
14	Porteous
32	Nix
36	Clelland
45	Spungin
50	"T & I for the Handicapped..."
56	Heath
57	"Employment of the Physically..."
61	"Twenty-five Years..."
66	DuPont
67	Robinson
69	Chicago, "The La Grange..."
71	Portland, "A Planning Study..."
94	Brock
96	Matlisky
97	Hinrichs
98	Wright, Jerauld B.
99	Drawbaugh.
100	Abbas
102	Miller
103	Tesolowski
110	"An Evaluation Design..."
115	Lambert
116	Shworles
122	"Planning Facilities..."
125	"Project MODEL..."
129	" "
130	McKinlay
133	Brandon
134	Love, Harold D.
139	Stark
141	"Services for Children..."
143	Burkridge
145	"Vocational Education for Persons..."
145	Campbell
157	Kafafian
160	"National Conference..."
161	"Twenty-five Years..."
165	Phelps, L. Allen
167	Staats
182	Martin, Edwin W.
187	Caddel
194	Dykes
196	"Pre-Employment..."
207	Phelps, F. Allen

BIBLIOGRAPHY

1 O'Neill, George. "Washington Report." Phi Delta Kappan, May 1979,
GEN pp. 628-629.
S

--Handicapped Dropouts--Edwin Martin, Chief of the USOE's Bureau of Education for the Handicapped, says one of the reasons the number of handicapped youngsters being served by schools is lower than projected is that many handicapped students are dropping out of high school. The reason is lack of appropriate services. He pointed to a study showing that 35% of dropouts in one state had been enrolled in special education in elementary schools.

2 Sarandoulias, Louis. "Getting Handicapped Students into the
EMP Mainsteam." *American Vocational Journal*, May 1975, pp. 22-25.
GV
PS
S

The author describes the mainstreaming technique used in the Camden County (NJ) Vocational & Technical School System to integrate the handicapped into the vocational program. He discusses the evaluation team and its functions, the employment orientation program, the regular program, problem prevention and employment status of graduates.

3 Halloran, William D. "Handicapped Persons: Who are They?"
GEN *American Vocational Journal*, January 1978, pp. 30-31.

This article includes an explanation of handicaps, statistics on numbers of handicapped, the barriers to programs and the attitudes of handicapped and non-handicapped to the barriers.

4 Godla, Louis. "Program Changes to Accomodate Handicapped Students."
GEN *American Vocational Journal*, March 1978, pp. 29-32.
PS

Describes the on-the-job training centers for vocational students in Fairfax County, Virginia. The handicapped are integrated fully into the program with some equipment and program modifications. A self assessment procedure is described and some special advice for vocational teachers is included.

5 Rosenberg, Claire. "Typewriting Methods, Materials and Curriculum
EMP for Handicapped Young Adults." *Century 21 Reporter*, Fall 1977,
BO pp. 6-9.
S
PS

The author discusses some of the techniques for motivation and implementation when teaching typing to handicapped students.

6 Grace, Harry A. "A Systems Approach to Employment after Orthopedic
EMP Rehabilitation." *Rehabilitation Counseling Bulletin*, March 1970,
OH pp. 261-270.
R

This article reports the findings of a study designed to determine how employers view orthopedically handicapped persons as prospective workers. The respondents were members of the Personnel and Industrial Relations Association, Inc. The findings are interpreted so that rehabilitation can be designed for the maximum opportunity for employment.

7 Schwab, Lois O., and Rose Fadue. "Are We Prepared for the New
LEG Rehabilitation Legislation?" *Journal of Home Economics*, March 1975,
GV pp. 33-34.
C

Discusses need for rehabilitation for self as well as vocation. Describes a 1973 study on teacher training for home economics and how much training they have to work with the handicapped--mentally, emotionally, physically, culturally and economically. Lists universities with majors or in-depth preparation.

8 Selling, Leo L., and William E. Ferinden, Jr. "Vocational Rehabilitation
EMP of Disabled Public Assistance Clients." *Rehabilitation Counseling*
R *Bulletin*, September 1969, pp. 34-37.

This is a description of a project designed to restore an increased number of disabled public assistance recipients to gainful employment through a coordinated program of special services provided by the New Jersey Rehabilitation Commission and Bureau of Assistance of the Department of Institutions and Agencies, Division of Public Welfare. The major effort was concentrated on developing a strong "Tandem Team" of professionals from the rehabilitation agency and the welfare agency.

9 Thoben, Patricia J. "Civil Rights and Employment of the Severely
EMP Handicapped." *Rehabilitation Counseling Bulletin*, June 1975,
pp. 240-244.

This article traces the legislation which has affected the hiring of the physically handicapped. There is also an outline of the existing barriers which prevent the handicapped from becoming full members of our society.

10 Lockard, Geraldine. "Mainstreaming: One Child's Experience." *Phi*
GEN *Delta Kappan*, April 1978, pp. 527-528.
M

This is a mother's touching account of mainstreaming and the program's success in helping her handicapped son.

11
GEN
GV
M

Eads, Freeman D., and Douglas H. Gill. "Prescriptive Teaching for Handicapped Students." American Vocational Journal, November 1975, pp. 52-56.

The authors describe Georgia's Vocational Education Awareness Program (VEAP). The program was designed to help meet the needs of handicapped learners. Sample forms are pictured which are used to prescribe academic and vocational methods for the student.

12
GEN
EMP

Orelove, Fred P. "Administering Education for the Severely Handicapped After P.L. 94-142." Phi Delta Kappan, June 1978, pp. 699-702.

Mr. Orelove discusses administrative problems in six vital areas: identifying the handicapped, placing them, training teacher personnel, individualizing educational plans, adopting procedural safeguards and avoiding law suits.

13
GEN
HE
R

Knoll, Cecelia Sue, and Lois O. Schwab. "The Outlook for Home Economists in Rehabilitation." Journal of Home Economics, January 1974, pp. 39-42.

Describes results of a study which was conducted to determine to what extent and in what areas home economists are presently employed in conducting training or instruction programs or used as consultants or researchers in rehabilitation programs. The authors also suggests coursework for home economists preparing for rehabilitation.

14
GEN
GV
M

Porteous, Peter L. "Handicapped? Forget It." American Vocational Journal, January 1978, pp. 32-36.

This article profiles four ha[illegible]ed individuals. Their vocational training and jobs are described. They are four success stories.

15
GEN

Cleland, Max. "Vocational Rehabilitation for the Disabled Veteran: Not a Mandate But a Right." American Vocational Journal, January 1978, pp. 38-39.

Cleland discusses the numbers of disabled veterans and the myths surrounding them. He includes some success stories and ends with a challenge.

16
GEN

Brenton, M. "Mainstreaming the Handicapped." Today's Education, 63, March-April 1974, pp. 20-25.

Describes mainstreaming and discusses the reasons for mainstreaming. Explains advantages for the "normal" as well as the handicapped student.

17
GEN
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S

Porter, Ernestine, Phyllis Richardson Spruiell, Mary Coleman Wyatt, and Jessie A. Warden. "Mainstreaming: Visually Handicapped Students." Journal of Home Economics, March 1978, pp. 34-38.

Describes development of teaching materials to be used by teachers of the visually handicapped. Modules were developed on hand sewing skills, construction of a blouse or shirt, and construction of a skirt. Suggestions for the teachers are included in the article.

18
GEN
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PS

Adelman, Frank W., and L. Allen Phelps. "Learning to Teach Handicapped Learners." American Vocational Journal, April 1978, pp. 27-29.

The authors discuss the present status of handicapped students at the secondary and post secondary levels. They give some general principles and special techniques to enhance the learning of handicapped students.

19
GEN

Geis, H. Jon. "The Problem of Personal Worth in the Physically Disabled Patient." Rehabilitation Literature, 33, No. 2 (1972), pp. 34-39.

The author tries to clarify the meaning of personal worth and highlight it as a crucial problem in the rehabilitation of the physically disabled. He contrasts the theories of worth in relation to BEING and DOING.

20
GEN

Gellman, William. "Projections in the Field of Physical Disabilities." Rehabilitation Literature, 35, No. 1 (1974), pp. 2-9.

The paper discusses the current (1973) rehabilitation status of the physically disabled, socioeconomic conditions in 1980, rehabilitation trends and the manpower projections based upon analysis of these trends.

21
EMP

Nagi, Saad Z., and Linda W. Hadley. "Disability Behavior: Income Change and Motivation to Work." Industrial and Labor Relations Review, 25, No. 2 (1972), pp. 223-233.

This article describes the changes in the individual and family incomes of a sample of disabled workers, identifies some of the important factors in these changes and examines the relationships between income change and motivation to work of workers in the sample.

22
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Beckman, Carol. "Mainstreaming: Hearing-Impaired Students." Journal of Home Economics, March 1978, pp. 34-38.

Discusses "Individualized Education Program" and prescriptions for individual success as mandated by P.L. 94-142. Describes the uniqueness of deafness. Appropriate learning experiences and support services are suggested.

23 EMP LEG ARC Pati, Gopal C. "Countdown on Hiring the Handicapped." Personnel Journal, March 1978, pp. 144-153.

The article lists the author's findings from academic and field research. The conditions which limit full functioning of handicapped persons are public transportation, architectural barriers and an uninformed population. A good and readable discussion on the Executive Order is included. Some case studies are described along with a discussion on successful placement, accomodation, supervision, labor-management cooperation and affirmative action.

24 EMP R Levitan, Sar A., and Robert Taggart. Jobs for the Disabled. Baltimore: The John Hopkins University Press, 1977. 129 pp.

This book is small but contains much information. The book covers the topics of disabilities, employability, the vocational rehabilitation system and some of the underlying issues such as return on investments by rehabilitation programs, client priorities, macroeconomic considerations and some prescriptions for the future. The book includes numerous tables, graphs, etc. which are excellent and easily understood.

25 ARC Agan, Tessie, Marilyn D. Casto, Savannah S. Day, and Lois O. Schwab. "Adjusting the Environment for the Elderly and the Handicapped." Journal of Home Economics, May 1977, pp. 18-20.

Architectural designs can confine or restrain a handicapped person. This article speaks generally to design and specifically to entrances and general features of buildings. It is also specific as to kitchens, baths, and bedrooms. Lighting is also covered. In new buildings, changes are not difficult or expensive--but there must be foresight.

26 GEN Kirk, Samuel A. Educating Exceptional Children. 2nd ed. Boston: Houghton Mifflin Company, 1972. 478 pp.

The book begins with the definition and history of education for exceptional children. The author then describes specific exceptions (handicaps) which include definitions for each problem, the prevalence, causes, associated handicaps along with education and habilitation programs. The emphasis in this book is with children and their education--not with vocational training for employment.

27 GEN S Neff, Herbert, and Judith Pilch. Teaching Handicapped Children Easily: A Manual for the Average Classroom Teacher Without Specialized Training. Springfield, Illinois: Charles C. Thomas Publications, 1976. 256 pp.

This is a manual for teachers, both regular and special education, to aid them in identifying handicaps of the individuals. The book also offers some very down-to-earth suggestions for helping the teacher cope and to teach. The book is mainly directed toward learning disabilities which are not physical. But, keeping the two entirely separate is impossible.

28 EMP Tuckey, Linda, et. al. Handicapped School Leavers: Their Further Education, Training, and Employment. Atlantic Richlands, NJ: Humanities Press, Inc., 1973. 61 pp.

This reports the results of a study which began in 1968 in Great Britian to investigate the range, availability, and suitability of the facilities for further education, training, and employment of handicapped school-leavers in relation to their estimated capacity to benefit from what is available to them.

29 GEN EMP Wright, George N., and Ann Beck Trotter. Rehabilitation Research. Madison, WI: The University of Wisconsin, 1968. 674 pp.

The primary purpose of the book was to solve the problem of communication of rehabilitation research. The book covers the actual handicaps with the demographic data for each, workmen's compensation, facilities, administration of programs and a section on evaluation, prediction, counseling, and counselors. This section includes an employability scale for the handicapped (page 469). Another section is devoted to the factors influencing the successful vocational adjustment of the physically disabled.

30 GEN NH Marks, Nancy C. Cerebral Palsied and Learning Disabled Children: A Handbook Guide to Treatment, Rehabilitation and Education. Springfield, IL: Charles C. Thomas Publications, 1974. 407 pp.

The author's purpose is to present the nature of cerebral palsy and learning disabilities, an in-depth look at the significant features of the nervous system as related to educational and habilitation problems, methods of evaluating and managing these problems and practical suggestions for remediation, training and treatment. The book is directed toward health related professional therapists and special educators.

31 GEN NH Edgington, Dorothy. The Physically Handicapped Child in the Classroom: A Handbook for Teachers. Springfield, IL: Charles C. Thomas Publications, 1976. 75 pp.

This handbook is written for the classroom teacher who must teach a handicapped child. There is a description of the handicaps and appliances which may be used with each handicap. The handicaps discussed are cerebral palsy, spina bifida, muscular dystrophy, cystic fibrosis, epilepsy and Legg-Perther disease.

32 Nix, Gary W., ed. Mainstream Education for Hearing Impaired Children and Youth. New York, NY: Grune and Stratton, 1976. 279 pp.
GEN
HI
H

This book focuses on: (a) the developmental aspects of mainstreaming a hearing impaired child or youth. (b) the problems and current practices of mainstreaming for the individual birth to age 21. (c) the administrative aspects of mainstreaming. (d) three exemplary early intervention programs which were the result of Project NEED (Normal Educational Environment for the Hearing Impaired).

33 Yates, Verna V. Mainstreaming of Children with a Hearing Loss: Practical Guidelines and Implications. Springfield, IL: Charles C. Thomas Publications, 1977. 283 pp.
GEN
HI
S

This book provides specific information concerning processes, guidelines, and materials which have already been time-tested, applied and modified in a successful large program of the mainstreaming of children with a hearing loss. The book is directed to clinicians, teachers, and administrators.

34 Phelps, L. Allen, and Ronald J. Lutz. Career Exploration and Preparation for the Special Needs Learner. Boston, MA: Allyn and Bacon, Inc, 1977. 358 pp.
GEN
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GV

The book was especially written for people who work in the area of special education and career and vocational education. The authors clarify several basic concepts and perspectives that are critical to effective interdisciplinary instructional planning for special needs learners. The nature of special needs learners, career exploration and preparation programming, and cooperative teaching are discussed, illustrated, and exemplified. The book also presents a series of specific processes designed to aid in developing and managing individualized instructional programs. A systematic approach to planning, implementing, and evaluating instruction is utilized in providing functional "how-to-do-it" information and planning forms. Learner identification and assessment, resource and job analysis, cooperating strategies, instructional module planning, instructional implementation, and evaluation of learner progress are among the processes described.

35 Safilios-Rothschild, Constantina. The Sociology and Social Psychology of Disability and Rehabilitation. New York, NY: Random House, 1970. 326 pp.
GEN
EMP
R

At different stages the author examines: (a) the status of the sick and disabled historically and cross culturally; (b) the process by which a person may go from a state of relative health to illness and then to disability; (c) the theoretical aspects of disability and rehabilitation; (d) disability at the three analytical levels of personality, social system and culture; (e) the disabled's motiviation to become rehabilitated; (f) the meaning of work and its relevance for the individual's identity; (g) the medical, demographic, socio-psychological, and vocational factors found to be related to rehabilitation success; (h) the fate of the rehabilitated patients after leaving the rehabilitation facility; (i) the nature of the shortcomings of present rehabilitation schemes and suggests some ways in which these schemes could be improved. The research is presented in a readable manner.

36 Clelland, Richard. Civil Rights for the Handicapped. Arlington, VA: American Association of School Administrators, 1978. 128 pp.
EMP
LEG
H

The first chapter of the book emphasizes an overview of Title V with Section 504 regulation and the substantive and procedural issues addressed by Section 504 regulation. The section on employment practices emphasizes the history of Section 504, a delineation of specific regulatory requirments and staffing issues relative to the structure and operation of local educational agencies. Other sections include a discussion of program accessibility issues relative to the structure and operation of local educational agencies, a comparison/contrast of P.L. 94-142 and Section 504 and a discussion of future trends.

37 Splaver, Sarah. Your Handicap--Don't Let It Handicap You. New York, NY: Julian Messre, 1968. 224 pp.
GEN

This book is directed to the handicapped person. It is more of a "You can do it" "how to" book. Agencies and people who can help are named and concrete suggestions given. A bibliography for information and inspiration is included.

38 Brandt, B.R. "The New World of Business Communications." Balance Sheet, 55, No. 4 (1974), pp. 148-149. (EJ 089 171)
GEN
BO
S
PS

A business communications course was instituted to provide vocational training for mentally, physically, or socioeconomically handicapped and potential dropouts. Duplicating and printing reproduction skills are taught through self-study and work in student groups on actual projects. Students become able to reproduce and assemble almost any type of written communication.

39 Stick, Roberta S. "The Handicapped Child Has a Right to An Appropriate Education." Nebraska Law Review, 55, No. 4 (1976), pp. 637-682.
LEG

This article discusses this newly evolving area of the law concerning the handicapped, the court decisions concerned with the handicapped, and future concern of defining an "appropriate education".

40 May, Elizabeth, Neva R. Waggoner, and Eleanor B. Hotte. Independent Living for the Handicapped and the Elderly, 2nd ed., Boston, MA: Houghton Mifflin, 1974. 271 pp.
GEN
IK

Outlines rehabilitation principles and shows how their application can help those with severe physical disabilities to overcome them. Details are given of clothing styles, mechanical devices, and various kinds of inventions designed to contribute to independence and mobility. A comprehensive appendix and an extensive bibliography are included.

41 Cull, John G., and Richard E. Hardy. Vocational Rehabilitation:
GEN Profession and Process. Springfield, IL: Charles C. Thomas,
R 1972. 547 pp.

The book begins by tracing the history of the rehabilitation concept and considers the place of work in our culture. Next comes a discussion of changing manpower utilization and other developing trends in rehabilitation. The next section of the book is devoted to the rehabilitation counselor and the services of vocational rehabilitation. The authors then discuss the characteristics and adjustments of the client. The conclusion of the book discusses the other professionals with whom the counselor works and interacts. The book would be most useful to the rehabilitation counselor.

42 Cruickshank, William M. Psychology of Exceptional Children and Youth
GEN Englewood Cliffs, NJ: Prentice-Hall, Inc., 1971. 624 pp.

This book attempts to explain the various aspects of somatopsychology--the study of some of the relationships that bind physique and behavior. The purpose of the book is to lead the reader to explore the psychological considerations of the influence of physical deviation upon the normative growth and development of children and young people.

43 Call, Carolyn. "Self-Image of Disabled Homemakers." Thesis at the
GEN University of Georgia, 1976, 81 pp.
HE

Ms. Call tested the hypothesis that the self-image of a disabled homemaker is independent of age, disability, education, social activities, employment outside the home and the ability to complete household tasks. She discusses her findings and details some case studies.

44 May, Elizabeth Eckhardt. "Lillian Moeller Gilbreth, 1878-1972:
GEN Pioneer in the Rehabilitation of the Handicapped Homemaker."
HE Journal of Home Economics, April 1972, pp. 13-16.

Describes early work by Gilbreth in work simplification for the handicapped homemaker (physically). Discusses Gilbreth's influence on college and university programs and her pioneer work with workshops and research grants.

45 Spungin, Susan J. Competency Based Curriculum for Teachers of the
GEN Visually Handicapped: A National Study. New York, NY: American
VI Foundation for the Blind, 1977. 216 pp.
M

This handbook describes the competencies needed by a teacher of the visually handicapped. The competencies were developed and refined by teachers.

46 Laurie, Gini. Housing and Home Services for the Disabled. Hagerstown,
ARC MD: Harper and Row, 1977. 432 pp.
GEN
LEG

This book includes: (a) summaries of legislation and of principal professional surveys and studies, lists of equipment sources and literature related to housing around the world, and the experiences and criticisms of a great many disabled persons; (b) examples of housing arrangements and services emphasizing that there is no universal solution to the housing problem and that each individual, group, and community not only can learn from the experiences of others but must also create its own special solution; and (c) references to legislation and housing projects designed for the elderly and developmentally disabled because they are also significant to the physically disabled.

47 Jeffrey, Dorothy A. "A Living Environment for the Physically Disabled."
ARC Rehabilitation Literature, 34, No. 4 (1973), pp. 98-103.
GEN

The author begins with an account of the numbers of the physically disabled. She relates the necessity of good housing to independence and rehabilitation. Included are suggestions for housing and community services.

48 Goldsmith, Selwyn. Designing for the Disabled. London, England:
ARC Royal Institute of British Architects, 1967. 207 pp.

The manual was written primarily for England and is in metric. There are sections containing definitions, a discussion on the disabled population, service installations, general spaces, public buildings and private housing. One section on ancillary data would be extremely helpful to planners of buildings.

49 Weintraub, Frederick J., et. al, eds. Public Policy and the Education
LEG of Exceptional Children. Reston, VA: Council for Exceptional
Children, 1976. 378 pp.

This book is a resource package for individuals who are concerned about public policies for exceptional children, and for those who want a better understanding of such policies and the know-how to effect necessary changes. The book examines: (1) the varying rights that advocacy groups have won for exceptional children in legislatures, courts, and administrative agencies of our land; (2) public policy at the federal, state, and local levels; (3) the varying avenues of change: statutory law, administrative policy, attorney general's opinions, and litigation; (4) the understanding and techniques on advocate needs to effect change in any system; (5) the professional rights and responsibilities of professionals in relation to the children they serve.

Each of the five sections is followed by a reference list.

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"T & I for the Handicapped? You've Got to be Kidding." *American Vocational Journal*, February 1975, pp. 78-83.

Speeches at AVA in Dallas, December 1974
James P. Pelligrino - Speaker
Joseph J. Comi, Hester Muuden, and Lloyd Brown - Reactors

Topics covered were law and tradition, planning, categorical funding, research, current status, specific groups, history and performance based curriculum.

51
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R

Ober, Scott, and Jack Heller. "Typing for the Handicapped," *Business Education World*. September-October 1978, pp. 3-5.

The article begins with a brief review of legislation and then briefly covers some selected handicaps. The authors give some suggestions on special learning materials, grading and careers.

52
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Richardson, Nina K. "Teaching Typewriting to Students with Missing Fingers," *Century 21 Reporter*, Spring 1979, pp. 11-12.

Actual suggestions are given to help the student with missing finger(s) to adjust to his particular loss.

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Rosenberg, Claire. "Typewriting Equipment and Learning Aids for the Physically Handicapped," *Century 21 Reporter*, Fall 1978, pp. 3-4.

This article reviews typing aids for the physically handicapped. Teaching aids and incentives are also discussed.

54
GEN

Peterson, Reece L., and Kathy Bass. *Mainstreaming: A Working Bibliography*. National Support Systems Project, University of Minnesota, Minneapolis, Minnesota, Third Edition, October 1, 1977, 66 pp.

This bibliography should not be considered complete and no reference is given to the quality of materials included. The index is given by subject matter. The references are not annotated.

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"Handicapped Students Earn Credits, Experience and Salaries." *College and University Business*, October, 1972, pp. 58-59.

This article describes the work of ten handicapped students at Kern County Community College (California) who are microfilming student records under a $27,000 federal grant under the Vocational Education Act of 1968.

56
GEN
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Heath, E. J. "In-Service Training: Preparing to Meet Today's Needs." *Academic Therapy*, 9, No. 5 (1975), pp. 267-280. EJ 102 654.

Rapid changes in the field of regular and special education have increased the urgency of supplying relevant in-service teacher training programs to help regular teachers serve an increased number of exceptional children in their classrooms.

57
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Employment of the Physically Handicapped in a Competitive Industrial Environment. Washington, DC: Vocational Rehabilitation Administration (DHEW), 1966, 31 pp. ERIC ED 052 349.

The objective of this project was to develop a center for the employment of severely disabled and older workers in a competitive industrial environment. The purposes were for (1) providing a continuing basis of employment for severely disabled and aged workers, (2) providing vocational training and work adjustment training for severely disabled and aged workers who might enter competitive employment following such training, (3) providing clinical training for rehabilitation personnel, and (4) stimulating the employment of severely disabled and elder workers through demonstration techniques. Employees receive prevailing wages and standard benefits. The center is working to re-educate the community so that new jobs for the disabled may be developed.

Included are lists of jobs and machines (equipment) for which people have been trained.

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Klinger, J.L., et. al. *Mealtime Manual for the Aged and Handicapped*. New York: Essaudess Special Editions, 1971, 242 pp. ERIC ED 043 981.

Specific techniques to alleviate difficulties encountered in routine kitchen tasks are described for the elderly and the handicapped, particularly those persons with upper extremity weakness or amputees, arthritis, incoordination, wheelchair confinement, loss of sensation, and limited vision. Helpful information is provided in areas of kitchen planning and storage; the selection of small appliances and kitchen tools; hints on serving, cleaning up, shopping, nutrition, and meal planning; and simplified measures with eating aids. Recipes and cooking instructions are provided for numerous main dishes, vegetables, salads, soups, sandwiches, beverages, and desserts. Lists of related references, service agencies, and sources for kitchen equipment and tools provide additional information. Photographs accompany the collection of helpful hints for the handicapped homemaker.

59 Hamza, A. J. A Cooperative Vocational Rehabilitation Program Between
GEN a Public Agency, A State University, and Organized Labor. (Final
R Report.) Trenton: New Jersey State Department of Labor and
Industry. (Instruction of Management and Labor Relations.)
New Brunswick, NJ: Rutgers, The State University. ERIC ED 074 293.

The project sought to determine methods of delivering vocational rehabilitation services to people from industry and labor who were disabled and in need of that service. Disability questionnaires were distributed through local unions, largely by mailings, in order to determine potential recipients of vocational rehabilitation services. One hundred forty four of the applications were returned and became the experimental caseload, being compared to 39 assigned to a control caseload. The report should assist rehabilitation programs and labor unions to work out more effective relationships.

60 Mall, Paul C. Feasibility Study for the Physically Handicapped 1970-1971.
GEN Springfield: Illinois State Board of Vocational Education and
PS Rehabilitation, 1970. 90 pp. ERIC ED 053 290.
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R

Using data gathered from 15 local agencies, this study sought to identify the number of physically handicapped individuals who could benefit from educational experiences in existing technical and occupational programs in the city colleges of Chicago. Answers were sought to questions such as: (1) What are the categories of disabilities of the handicapped individuals of metropolitan Chicago? (2) Which types of academic, technical and occupational training are appropriate to each category of handicapped individuals? (3) What areas and levels of employment are available for the handicapped individual and in what quantity? and, (4) What are the cost factors in initiating and operating such programs? A major finding of the study is that the handicapped students who are receiving educational opportunities at the four-year universities are pursuing baccalaureate degrees, and many who could benefit from technical and occupational programs are not provided the opportunity. New programs are needed to provide vocational and technical education to this group of students.

61 Twenty-five Years of Volunteers in Partnership. Washington, DC:
LEG President's Committee on Employment of the Handicapped, 1972.
M 67 pp. ERIC ED 072 280.

On the occasion of the 25th anniversary of the President's Committee on Employment of the Handicapped, this bruchure traces the Committee's beginning and development after World War II. The individuals, groups, programs, and legislature involved in helping the handicapped to a better life are discussed in the narrative.

62 Levitan, Sar A., and Robert Taggart. Jobs for the Disabled.
GEN Baltimore, MD: Johns Hopkins Press, 1977. 129 pp.
P

This book covers the employment problems of the disabled, the vocational rehabilitation system and some of the basic issues of employment of the handicapped such as a needs assessment, the return on the vocational rehabilitation investment, client priorities and workfare and welfare. The book ends with some recommendations for vocational rehabilitation.

63 Blaxter, Mildred. The Meaning of Disability. Salem, NH: Heinemann
GEN Educational Programs, Inc., 1976. 259 pp.

The author in her research in Britain discusses in detail what happened to the handicapped people she sampled and the relevant services. She discusses personal problems, social problems and work problems. Chapters 5, 6 and 7 cover those problimes which are work related.

64 Massie, Dorothy. "Update on Education of the Handicapped." Today's
GEN Education, The Journal of the National Education Association,
S 67, No. 3, September/October 1978, pp. 60-73.

This article reports on the NEA Study Panel on Education of Handicapped Children. The problems of Public Law 94-142 are discussed and some recommendations are given at the end of the article.

65 Crammatte, Alan B. Deaf Persons in Professional Employment.
HI Springfield, IL: Charles C. Thomas Publications, 1968.
186 pp.

This book includes material and data which would be useful to the deaf person and to the people who have contact with the deaf person. Covered are education, careers, on-the-job problems, and attitudes of and about deaf persons.

66 DuPont, Ann. "Mainstreaming: A Current Challenge," Tips and Topics,
LEG Volume XVIII, No. 4, Summer 1978, p. 1.
GV
M

The author states clearly and concisely the reasons for mainstreaming. She then cites literature which gives some suggestions which could facilitate mainstreaming.

67 Robinson, Sandra D., R.D., and Karyn Spratt, O.T.R. "Mealtime with
GEN the Handicapped." Tips and Topics, Volume XVIII, No. 4,
HE Summer 1978, p. 6-7.
M

The importance of food is discussed--social and nutritional--along with assessment methods. Tips are included on training the individual and on the equipment adaptions needed. The nutritional adequacy of diets is discussed.

68 Groves, Ramsey M. A National Survey of Vocational Education Programs
GEN for Students with Special Needs. Columbus: Ohio State University,
S (Center for Vocational and Technical Education), 1966.
ERIC ED 011 041.

The major objective was to ascertain the status of vocational education for students with special needs. The study included only programs operated in public high schools, funded either partially or fully by the Vocational Education Act, Public Law 88-210, and designed specifically for students who have academic, socioeconomic, or other handicaps that prevent them from succeeding in regular vocational education programs. Programs for students who have low mental capacity and require a high degree of attention by specially trained school personnel were excepted. Of the 333 teachers receiving a survey questionnaire, 229 responded. However, only 79 questionnaires were usable because of the scope of the study. The programs were similar to the regular vocational programs. A majority were operated for more than one type of disadvantaged student and the curriculums were planned and adapted to the students' abilities. They were often designed to train the student for employment in a broad spectrum of occupations rather than for a particular skill. A national survey to determine the numbers and locations of students with special needs and research to determine numbers and kinds of jobs for which students with special needs could be trained were recommended.

69 Chicago. The La Grange Area Department of Special Education Handbook.
GEN Chicago, IL: La Grange Area Department of Special Education,
M 1966. ERIC ED 010 719.

The La Grange Area Department of Special Education serves 16 school districts. Policies of the Department are listed. Functions of the director, secretary, and coordinator-supervisor are detailed. Qualification for admission to special education classes, goals of these classes, and information about existing classes are presented for exceptionality areas, which include blind, educable mentally handicapped, hospitalized and homebound, hearing impaired, physically handicapped, trainable mentally handicapped, emotionally and socially maladjusted, and perceptually handicapped. Descriptions of programs of psychological services, social work services, and prevocational services are included.

70 McQuillen, Anita, et al. A Study of the Integration of Services of
GEN Industrial Medical Departments and a Rehabilitation Center. Final
R Report. Pittsburgh: Harmarville Rehabilitation Center, 1963.
ERIC ED 012 062

This is a demonstration project of cooperation between a rehabilitation center and three large industrial companies. Over a 3-year period, 56 workers who had been injured on the job and hospitalized were admitted to the rehabilitation center. Of the 50 workers studied, the average length of stay in the center was 36 days. A followup study, conducted 3 months after discharge, showed 45 of the 50 workers were employed, and 50 percent said they felt greatly improved. Attempts are made in the report to analyze the reasons that others were less satisfied with the treatment. Of great importance to the project was the establishment of cooperative working procedures with the industrial-medical departments. The various factors involved in this are discussed. The project staff concludes that such cooperation improves the rehabilitation of injured workers.

71 Portland. A Planning Study for a Cooperative State-Wide Orientation
VI and Mobility Program for the Blind in Oregon. Project Report.
M Portland, OR: Multnomah School District Number 1, 1968.
ERIC ED 026 774.

An introduction on blindness is followed by a summary of the initial planning grant proposal for cooperative statewide orientation and mobility program for blind children. Background, development, and utilization of mobility-orientation training are discussed in conjunction with educational programs, guide dogs, canes, mobility readiness, instruction, guidelines, and recent research. Four organizations described are the Special Services Section of the State Department of Education, the Portland Regional Facility for the Blind, the Oregon Commission for the Blind, and the Oregon State School for the Blind. Considered are the incidence and prevalence of blindness: out-of-state programs mentioned include Catholic Charities of Chicago, Hines Veterans Hospital, Detroit Public Schools, Fernald State School, and Perkins School for the Blind. Recommendations and proposed schedule of implementation, concluding statements, and time schedule of project events are presented.

72 Kansas. Special Education Diagnostic and Resource Center Project.
GEN ESEA Title III Evaluation Report. Kansas: Wichita Unified School
S District 259, 1968. ERIC ED 028 555.

The project provided for the 2nd year of operation of a special education diagnostic and resource center, special classes, and supportive services for handicapped children and youth between the ages of 3 and 21. Cooperation was obtained from existing community agencies, participating school districts, and local private practitioners. Center staff included coordinators, psychologists, social workers, a librarian for the visually handicapped, a peripatologist, and consultants in art, music, and physical education. The supplementary classroom program provided placement in the following categories: learning disabilities, hearing handicapped, severely orthopedically handicapped, trainable mentally handicapped, emotionally disturbed, and Negro underachievers. Counseling services for parents, consultative services for supplementary or regular classrooms, resource materials and equipment, and materials and equipment for the visually handicapped and blind were also provided. Both test and non-test sources of data were used to evaluate the project: teacher ratings and consultant reports indicated that most pupils were improving in attitudes, skill areas, and group functioning.

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Tarr, Rodney F., and James P. Lewis. *1974-76 Follow-up of the Physically Handicapped in Pennsylvania*. Univeristy Park: Pennsylvania State University, 1977, 84 pp. ERIC ED 149 165.

Conducted to assist vocational educators in planning programs for handicapped students, the project examined selective aspects of the vocational education program, adjustments, and present status of the physically handicapped vocational graduates and the views of the employers and parents toward the training of graduates. (Data collection instruments are included in the report.)

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1976 High School Follow-Up System. Summary of Findings. Salem: Oregon State Department of Education (Career and Vocational Education Section), 1977, 35 pp. ERIC ED 150 400.

This report summarizes the findings of a follow-up study of Oregon's high school class of 1976 regarding their activities and perceptions. Description and graphic presentation of the findings is under ten topics: (1) present activity of vocational respondents, (2) continuing education, (3) employment, (4) vocational student weighting factor (degree of involvement in vocational programs), (5) comparisons by sex, (6) disadvantaged students, (7) handicapped students, (8) cooperative work experience, (9) vocational student organizations, and (10) student services.

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Harvey, E. B., and Vandra L. Masemann. *Occupational Graduates and the Labor Force*. Toronto: Ontario Department of Education, 1975, 230 pp. ERIC ED 146 338.

The follow-up study of 2,101 students from occupational programs in Ontario secondary schools reported in this document is retrospective and longitudinal in nature. The study was intended to ascertain the effectiveness of the occupational program in enabling graduates to secure employment and to hold a job, and to assess the relation to and influences on occupational graduates of other background and school variables. The actual employment experiences of occupational graduates and the relation of their training to these experiences were studied and the effects on students just completing a two- or three-year occupational program in 1973 were examined.

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Evaluating Programs for the Disadvantaged. Final Report. Ft. Collins: Colorado State University (Department of Vocational Education), 1976, 57 pp. ERIC ED 145 217.

A study was conducted to develop a packet of individual instruments for use in evaluating and perfecting the effectiveness of all special vocational education programs in Colorado. Nine special programs located in schools in eastern Colorado were selected for the study. A literature review, on-site observations, and individual interviews were used to gather information for the development of the instruments.

Nine instruments were developed and designed to measure general attitude, student attitude, vocational teacher attitude, special program information, related instructional materials, attendance and tardiness, public relations, student follow-up, and special program follow-up.

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Eigeman, Elaine G., ed. *Vocational Programs in Indiana for the Disadvantaged and Handicapped*. Technical Report Series, 2. Bloomington: Indiana University (Department of Vocational Education), 1977, 64 pp. ERIC ED 141 643.

Fifty-six current Indiana vocational programs for the disadvantaged and handicapped are abstracted and summarized for use by State and national educators and administrators. Each abstract contains the project title and number, the developing county and school's name and address, the name of the contact person, total budget costs, type of program format, number of participants and grade level, and the number of the page which contains the project summary. The project summaries then present the objectives and describe more fully the participants and the format. Summaries are organized according to six types of program format: The mainstreaming approach, the extended experience approach, the separate classes approach for special needs students, career orientation, audiovisual and instructional materials development, and placement and follow-up services.

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Quanty, Michael. *1975 Career Student Follow-up: Initial Placement*. Overland Park, KS: Johnson County Community College, 1976, 25 pp. ERIC ED 126 999.

During the fall of 1975, career program coordinators at Johnson County Community College (JCCC) contacted students who graduated from their programs that year and non-graduates who left with marketable skills. The report details the study findings for each of the ten career programs involved, and provides comparisons with previous career follow-up studies. The interview instrument utilized in the study is appended.

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Tatham, Elaine L., et al. *Three JCCC Career Student Follow-ups*. Overland Park, KS: Johnson County Community College, 1975, 37 pp. ERIC ED 110 142.

This document presents the findings of three state-required career student follow-up studies--a one year follow-up of 1972-73 students, a three year follow-up of 1970-71 students, and an initial placement (six months) follow-up of 1973-74 students--in the form of two reports. Data is analyzed separately for career students who were also members of the hearing-impaired program. All data is presented by program area on various tables. The telephone survey is appended with additional questions related to specific program areas.

80 Harlow, Mary Jane P., et al. *Post Secondary Programs for the Deaf:
EMP *V. Follow-Up Data Analysis*. Research Report No. 79. Minneapolis:
HI University of Minnesota (Research, Development, and Demonstration
GV Center in Education of Handicapped Children), 1974, 36 pp.
PS ERIC ED 109 862.

The fifth of a series of six monographs (for other monographs in the series see ED 106 998, 106 999, 107 002, and 107 009) provides follow-up data on 467 former students of three postsecondary vocational technical programs for the deaf. Introductory information includes objectives of the study (such as providing developing postsecondary programs with guidelines for establishing programs for the deaf) and a summary of the contents of each monograph in the series. Among conclusions noted are that although there is a broadened range of postsecondary course offerings available, students tend to be placed in a limited number of subject areas, and that placement tends to be along sex lines.

81 Kemp, Bryan J., and Sharon Y. Moriwaki. *The Influence of Psychosocial
EMP Factors on the Success of Disabled Persons in Different Vocational
GV Settings*. Final Project Report. Downey, CA: Rancho Los Amigos
PS Hospital, Inc., 1972, 119 pp. ERIC ED 078 138.
C

This study was conducted to delineate some of the characteristics of disabled clients which contribute significantly to success in vocational programs. The performance of disabled persons in three types of vocational settings (college, skill training, and work evaluation/work experience samples) was examined to determine if the factors contributing to objective measures of success varied as a function of the program demands or the client/student's initial abilities. An additional part of the project was devoted to a follow-up of clients who had been placed in employment in order to guage their long-term stability and factors which potentially relate to their maintenance of employment.

82 Overs, Robert P. *Employment and Other Outcomes After a Vocational
EMP Program in a Rehabilitation Center*. Milwaukee Media for
GV Rehabilitation Research Reports, No. 11. Milwaukee: University
R of Wisconsin, 1971, 158 pp.

This is a structured interview study of a 20% random sample consisting of 148 clients interviewed a year after leaving a rehabilitation center vocational program. Employment outcome is related to age, marital status, impairments, education, race, social class, program completion, attendance and punctuality.

83 *Vocational Rehabilitation Services in a State Penitentiary System*. Final
EMP Report. Oklahoma City: Oklahoma Vocational Rehabilitation Service,
GV 1967, 78 pp. ERIC ED 051 384.
R

The purpose of this project was to provide total rehabilitation services to a group of handicapped inmates of the State Penitentiary System in order to demonstrate the effectiveness of returning them to society as productive citizens. Specific conclusions from the project were that; (1) many public offenders can be rehabilitated, (2) no hard and fast criteria or cut off points can be specified, (3) selection procedures for clients from correctional institutions need to be carefully evaluated on a periodic basis, and (4) long programs of vocational training after the inmate has left the institution are not desirable.

84 *Evaluation Report of the Workshop for Vocational and Special Education
EMP Teachers, Cincinnati Public Schools, 1969-70*. Ohio: Cincinnati
GV Public Schools and Pennsylvania: Pittsburgh University, 1970,
S 30 pp. ERIC ED 048 684.

An evaluation report of a workshop conducted by the Office of Research, University of Pittsburgh (May 18-21, 1970) for vocational and special education teachers in the Cincinnati Public Schools is presented. As part of the plan for improved capability of the Cincinnati Public Schools to educate the handicapped children, an analysis of the incidence of employment, type of employment, income range, and employer attitude was also conducted.

85 Prisuta, Richard. *A Follow-Up Study of Auditorially, Visually, and
EMP Orthopedically Handicapped Pupils in Cincinnati*. Final Report.
SI Pennsylvania: Pittsburgh University, 1970, 137 pp.
HI ERIC ED 048 677.
VI
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A follow-up study of aurally, visually, and physically handicapped graduates of the Cincinnati Public Schools was investigated for use in future educational planning for handicapped children. Findings were indicated by the researchers to show that the majority of the handicapped pupils were capable of successful occupational adjustment to unskilled and semiskilled jobs; however, impractical school experiences were not marketable enough to provide economic stability. Recommendations were made that the administration should assume more responsibility for the occupational placement of disabled pupils; the scope of the pre-vocational training program should be expanded to meet the changing labor market demands; and specific program objectives which pair specific skills with specific job opportunities based on employment situations of former pupils should be created.

86 *Final Report of a 5-Year Collaborative Study on the Effectiveness of
GEN Early Application of Vocational Rehabilitation Services in Meeting
EMP the Needs of Handicapped Students in a Large Urban School System*.
GV Albany: New York State Education Department, 1968, 198 pp.
S ERIC ED 041 406.

To determine the effect of prevocational work experience on the severely handicapped, 280 children, aged 14 to 17, were studied. The children were subdivided into three disability groupings (physically disabled, educable mentally retarded, and emotionally disturbed), each of which was further divided into experimentals (E's) and comparisons (C's). Results indicated that the disability groupings differed markedly in demographic and personal characteristics, in the nature of presenting problems, in their school careers, and in outcomes. The physically disabled benefitted most from the services with the E's having higher potential for employment than the C's. Additional findings were that ethnic and socioeconomic status were important determiners of both progress and outcome; the services were least effective with children in the poverty subculture.

87 Klapper, Morris, et al. Vocational Readiness for Young Disabled Students
GEN in New York City, a 3-Year Interim Report of a 5-Year Collaborative
R Study. Albany: New York State Education Department, 1966, 112 pp.
S ERIC ED 015 314.

The purpose of the study was to demonstrate the feasibility of applying coordinated vocational rehabilitation, educational, and guidance services to severely handicapped children between 14 and 16 on the premise that these students might be unable to take maximum advantage of services initiated at a later age. Students in the experimental group in the physically handicapped unit showed improvement in intellectual level of functioning, school achievement, and vocational progress. Included are statistical tables, detailed sociological and medical data, thumbnail sketches of the performance history of each of the emotionally disturbed students, and samples of the instruments used in the study.

88 Brauch, Robert L., and Lois B. Hodik. A Computer-Based System for
EMP Managing Special Education Follow-Up Data. Final Report.
SV Sacramento: County Office of Education, 1976, 54 pp. ERIC ED 148 042.
S

Described is the development of a computer-based survey system for providing follow-up information on 202 former special education students. Among topics addressed are the construction of a student master file, use of telephone interviews, development of the survey instrument (including interviews with teachers and administrators and pilot testing of the draft questionnaire), establishment of a data analysis and reporting system, input to the data analysis program, processes involved in data analysis, and output of the data analysis program. The second section covers results of the field test of the follow-up procedure. Advantages and disadvantages of a computer based system are considered.

89 DePaolo, Ann. Comparison of Hearing Impaired to Hearing Graduates on
EMP the High School Graduates Follow Up Career Survey. Scranton:
HI Northeastern Educational Intermediate Unit, 1976, 57 pp.
S ERIC ED 138 011.

The postsecondary activities of 16,759 hearing and 21 hearing impaired graduates of 1973 vocational education programs in Pennsylvania were compared. Both groups were administered the High School Graduate Follow-up Career Survey, which measured such factors as motivation to work in the field of study, time period before full-time employment, and gross salary distribution. Results suggested that more hearing impaired graduates worked rather than going to college. Findings pointed to the need for a greater variety of work oriented programs and supportive services for the hearing impaired.

90 Gershman, Janis. The Evaluation of Special Education Programs: Past
GEN Attempts and Present Directions. No. 134. Toronto (Ontario):
GV Toronto Board of Education, 1975, 31 pp. ERIC ED 119 415.
S

Reviewed is the literature on issues relating to the evaluation of special education programs with special emphasis on the comparison of regular versus special class placement and Canadian programs. Results of studies dealing with effects of mainstreaming or special class services are reviewed in terms of social acceptance by peers, self concept, and attitude toward school. Four models to improve delivery of services to handicapped children are compared.

91 The Vocational Status of Michigan Rehabilitants of Fiscal Year 1969 Two
EMP Years After Closure. The Results of a Follow-up Study and Benefit/
GV Cost Analysis. Lansing: Michigan State Department of Education,
R 1971, 136 pp. ERIC ED 049 481.

This report describes the post-closure vocational status of a random sample of five separate Minnesota Division of Vocational Rehabilitation program groups: (1) physically disabled; (2) mentally ill; (3) mentally retarded; (4) public assistance recipients; and (5) workmen's compensation recipients. The study, based on benefit/cost theory, demonstrates the continuing economic benefits which result from the investment of state and federal funds in the rehabilitation of the disabled.

92 Ludwig, Edward G. Patterns of Adjustment to Disability. Columbus:
EMP Ohio State University, 1970, 176 pp. ERIC ED 043 197.

Designed to assess the validity of the determinations among applications for Social Security disability benefits, a comprehensive evaluation of each applicant was made including medical, psychological, social, and vocational data on each subject and his family. A follow-up study was conducted for 705 applicants from Ohio two to six years after the initial application was made for disability benefits.

93 A Study of the Vocational Success of Groups of the Visually Handicapped.
EMP Final Report. Ann Arbor: Michigan University, 1969, 221 pp.
VI ERIC ED 036 020.
GV

The purpose of this project was to examine factors that seem to contribute to the vocational success of a group of visually handicapped. Findings showed a high percentage unemployed; those employed had in general an annual income below the median for the general population and were engaged in a narrow range of occupations. Variables that seemed to be most related to vocational success included IQ, sex, other disabilities, travel ability, and level of education. Except for IQ, and certain subtests of vocational interest tests, results of personality and vocational aptitude tests were not highly related to vocational success. Additional data analyses and implications for educators and rehabilitation counselors are discussed.

94 Brock, Robert J. Preparing Vocational and Special Education Personnel
GEN to Work with Special Needs Students: State of the Art, 1977.
GV Stout, Menomonie: Wisconsin University, 1977, 53 pp.
M ERIC ED 149 518.

Presented is information gathered by questionnaire and direct telephone interviews on programs preparing vocational and special education personnel to work with special needs students. Outlined are data gathering procedures (sample questionnaire and interview forms are included); resulting data on operational programs, projected programs, programs with a mainstreaming emphasis, and programs which were judged not to be designed to prepare vocational/special education personnel; and observations and recommendations on program development, state teacher certification and university training program articulation, program articulation, program dissemination, mandated requirements, and responses of interested persons. Appended are a teacher certification directory, abstracts on 20 operational programs, a listing of projected programs, and a listing of programs offering one or two mainstreaming or inservice courses.

95 Stevenson, William W. The Educational Amendments of 1976 and Their
LEG Implications for Vocational Education. Information Series No. 122.
GV Columbus: Ohio State University, 1977, 21 pp. ERIC ED 149 191.

This information analysis paper examines the Educational Amendments of 1976 projecting the effect of the amendments of vocational and technical education which may result and discussing immediate as well as long-range implications of the amendments. Organization of the paper is around areas of special legislative emphasis that will create the greatest change in vocational education: planning, data and information, evaluation, elimination of sex bias and sex stereotyping, special groups (disadvantaged, handicapped, English deficient), and program improvement (research and curriculum). Overall directives of the amendments are summarized and changes in internal operations of departments and programs of vocational education's relationships with other agencies such as the Comprehensive Employment and Training Act and with the public are discussed.

96 Matilsky, Philip I. Career Education--The State of the Act of Inservice
EMP Training. (Paper presented at the Annual International Convention,
GV The Council for Exceptional Children), 1977, 13 pp. ERIC ED 140 588.

The author describes four exemplary inservice programs dealing with career education for the handicapped, and reviews current issues in the field. Implications of P.L. 94-142, the Education for All Handicapped Children Act, on the field are discussed.

97 Hinrichs, Roy S., and Gary A. Stone, comp. Sources of Information--
GEN Vocational Programs for the Handicapped. State College: Mississippi
GV Research and Curriculum Unit for Vocational and Technical Education,
M 1976, 82 pp. ERIC ED 131 194.

Literature cited in this bibliography is the result of a search of the AIM/ARM (Abstracts of Instructional Materials/Abstracts of Research Materials) data base, which yielded over 100 citations reporting state-of-the-art views of vocational training for the mentally and/or physically handicapped. Literature dated before 1970 is omitted. Each entry includes a classification number (VT number), date, title, institutional source, number of pages, availability, indexing terms, and an abstract. Information on how to order original documents or full text reproductions is appended.

98 Wright, Jerauld B. Urban Vocational Education: A Summary of Recommendations
GEN by the National Advisory Council on Vocational Education. 1975,
EMP 15 pp. ERIC ED 130 105.
GV
M

The research and evaluation consultant for the North Carolina Advisory Council on Vocational Education summarizes the position of the National Advisory Council based on their special 1974 report entitled "Report on Urban Vocational Education" supplemented by the annual reports from 1972 to 1975. Recurrent themes are said to indicate areas of special concern for improving urban vocational programs: Program expansion, funding, relevance of courses, coordination among employers and unions and schools, counseling and placement, image of vocational education, private schools, discrimination, and needs of handicapped students.

99 Drawbaugh, Charles C. An Overview of Personnel Development in Business
GEN and Industry. Columbus: Ohio State University, 1975, 42 pp.
GV ERIC ED 118 847.
M

The paper provides historical background of the training movement, an overview of the state of the art of personnel development in business and industry, and assessments affecting the future direction of human resource development in business/industry and public vocational education. A section, "The Human Resources Pool," deals with the problem of determining who should be selected for training and by what means (testing, discrimination, and commitment to train the disadvantaged and handicapped). The author offers 15 conclusions on industrial training, nine predictions with related bibliographic citations, and 12 action-oriented recommendations.

100 Abbas, Elizabeth K., and Patricia L. Sitlington, eds. Issues in the
GEN Preparation of Personnel for the Vocational Programming of
GV Special Needs Students: Synopses of Selected Materials.
M 1976, 77 pp. ERIC ED 118 828.

The document opens with a statement-of-the-art review discussing influences which affect educators who prepare personnel involved with special needs stud The abstract section of the document is divided into the following topics: (1) issues and trends in vocational and special education (books, papers, and articles covering: some issues in vocational education, mainstreaming--alternatives to special education classes, and the new school population--the severely handicapped); (2) selected programs for special needs students (mostly descriptions of programs); (3) issues in the area of competency based teacher education (including competency based teacher education, competency identification for vocational teacher education, and competency identification for special teacher teacher education); and (4) existing university-level personnel preparation programs (giving program descriptions, location, and contact person).

101 Retzlaff, Walter F. Project Worker: Videotaping Work Stations in
GEN Industry. (Teaching Exceptional Children, 5, 3). Spring 1973,
S pp. 135-137. ERIC EJ 074 678.

Described is Project Worker, a program which uses audiotapes and videotapes (showing work stations in various industries) in classrooms to improve the vocational skills of educable mentally retarded, educationally handicapped, or orthpedically handicapped students (14-to 19-years-old).

102 Miller, Ron, and Jay M. Wood. Handicapped Students Learn Basic Skills
GEN of Yard, Garden and Home Maintenance. (American Vocational Journal,
GV 45, 8). November 1970, pp. 53-54. ERIC EJ 028 853.
M

Describes a yard, garden, and home maintenance program designed to enable handicapped students to become employable workers.

103 Tesolowski, Dennis G., and Gerald Halpin. Effects of a Training Program
GEN on the Job Readiness of Physically Handicapped Sheltered Workshop
EMP Employees. (Paper presented at the Annual Meeting of the American
M Educational Research Association in Toronto, Ontario, Canada on
March 27-31, 1978). 1978, 15 pp. ERIC ED 151 544.

Twenty-two physically handicapped sheltered workshop employees were matched on the severity of their disabilities and randomly assigned to either an experimental or control group. Those in the experimental group participated in a one-hour-per-day, fifteen-day job readiness training program in addition to their regular sheltered workshop jobs while the control group simply continued with their regular jobs. Curriculum in the job readiness training program was designed to prepare clients to self-appraise their vocational interests and attitudes, to provide them with knowledge about job seeking skills, and to better enable them to exhibit more appropriate job maintenance behaviors once they have acquired a job. Included in the training were techniques related to job finding, employment application procedures, how to handle the job interview, personal presentation and appropriate behaviors in the interview or job search, and personal presentation and appropriate behaviors recommended to maintain a job. Based on a randomized block design with pretest as a covariate, the experimental group showed significantly greater attractions toward work as measured by the Vocational Opinion Index than did the control group.

104 Corley, Joel. Breaking Down the Barriers. (Florida Vocational Journal,
ARC 3, 5). December-January 1978, pp. 20-23. ERIC EJ 173 022.

Concerning the removal of architectural barriers in order to accomodate handicapped students in vocational-technical education, this article presents lists of barrier considerations applicable to the physically handicapped student, sight-disabled student, and hearing-impaired student. Also included is a list of basic concerns applicable for all disability groups.

105 Bowe, Frank. Looking Beyond the Disabilities. (Worklife, 2, 5).
GEN May 1977, pp. 13-15. ERIC EJ 161 768.
GV

Discusses the challenge of employers to provide reasonable accomodation and of educators to increase vocational education opportunities for employment among disabled persons.

106 Robinault, Isabel P., and Marvin Weisinger. A Brief History of the
GEN ICD Research Utilization Laboratory. (Rehabilitation Counseling
GV Bulletin, 19, 2). December 1975, pp. 426-431. ERIC EJ 132 327.
R

The ICD Research Utilization Laboratory received a five-year RSA grant in 1970 to act as a catalytic interface between research and practice for the rehabilitation of special client populations. The present thrust is to demonstrate how management practices can be improved in programs for vocationally vulnerable populations. This article describes that improvement effort.

107 Low, John. Single Step for Handicapped. (Community and Junior College
GEN Journal, 46, 3). November 1975, pp. 18-21. ERIC ED 126 357.
PS
R

Describes the "Single Step" program for handicapped adults at Dundalk Community College (Maryland), which consists of 15 one-day-per-week sessions of testing, skills training, guidance, and counseling.

108 Rosenbrier, Gilbert H. Educating the Handicapped in Biomedical
ARC Instrumentation. (Technical Education Reporter, 1, 1). May, 1974,
GEN pp. 58-61. ERIC EJ 097 415.
EMP
PS

Handicapped community college students recruited for a one-year pilot career program (Biomedical Equipment Technology) proved that when architectual barriers are removed, educational and career fulfillment become possible. Innovations introduced to assist handicapped students now benefit every college student; new programs for paraplegics and the deaf are being planned.

109 Foster, June C., and et al. Guidance, Counseling, and Support Services
ARC for High School Students with Physical Disabilities: Visual,
GEN Hearing, Orthopedic, Neuromuscular, Epilepsy, Chronic Health
EMP Conditions. (Incudes State Resource Directory). Cambridge, MA:
S Technical Education Research Center, 1977, 795 pp. ERIC ED 149 561.

Intended for use by high school guidance personnel, the two volumes provide general information and a resource guide on physical disabilities. The first section provides an overview of each of the physical disabilities and health problems. The section on coordinating the delivery of services gives information on strategies for planning, coordinating, and delivering services; inservice training; and materials. Personal adjustment is discussed in terms of attitudes toward persons who are physically disabled, family life, development of independent living skills, development of recreational interests and skills, interpersonal relationships, group counseling, group bibliotherapy, and personal adjustment materials. Educational placement, course selection, and architectural accessibility are among topics considered in the section on educational planning. A chapter on career development and guidance examines such topics as special concerns in counseling disabled studetns, job seeking, and work oriented activities. Discussed in relation to vocational assessment are sites and components of vocational assessment and work adjustment. Topics covered in the chapter on psychometric testing include the Public Law 94-142 mandate on protecting of human subjects, guidelines for nondiscriminatory testing, and specific guidelines for testing disabilities. Suggestions for job placement and parent involvement are also given. Provided are sources for ordering materials and a resource guide. A separate volume contains detailed listings of organizations and directories by state. (DB)

110 An Evaluation Design for the Educational Programs for Pupils Who Are
01 Orthopedically Handicapped. Columbia: South Carolina State
GV Department of Education--Office of Programs for the Handicapped,
M 1977, 75 pp. ERIC ED 146 760.

The booklet provides forms for the teacher of the orthopedically handicapped to use in systematically collecting data and designing an appropriate educational blueprint for each student. Pupil development assessment sheets include columns for recording assessment date, date of mastery, level of achievement, and comments for each behavioral objectives.

111 Kelley, Catherine H. The Development of Individualized Supportive
ARC Services for Physically and Sensorially Limited A[illegible]lts at a Post-
GEN Secondary Area Vocational School. Final Report. [illegible]as: McLennan
GV Community College, 1977, 270 pp. ERIC ED 146 345.
PS

A project was conducted (January 1975-June 1977) to develop and implement a coordinated program of supportive services for the physically and sensorially limited adult at the post-secondary level. Phase I consisted of removing architectural barriers, establishing an advisory committee, staffing the project, preparing the budget, and purchasing needed equipment. During Phase II the clientele were identified, services were established and offered, and recruitment publicity tools were developed. Phase III included special programs, e.g., an awareness week to sensitize the campus and community populations to the problems and needs of the handicapped.

112 Vocational Education: A Manual of Program Accessibility for the
GEN Physically Disabled Two-Year College Applicant. Albany: State
GV University of New York, 1977, 224 p. ERIC ED 145 868.
C

This manual was designed as a resource guide for handicapped individuals interested in two-year occupational training at various institutions within the State University of New York (SUNY) or City University of New York (CUNY) systems. It provides an overview of 50 vocational degree programs, indicates which educational institutions offer such programs, and assesses the following characteristics of each: (1) course requirements; (2) classroom procedures; (3) classroom setting; (4) course environment; and (5) physical personality demands of coursework. It also indicates characteristics of the jobs which each program leads to, including worker personality characteristics, physical demands, work setting, and requirements for vision, speech, hearing, and eye-hand coordination. The manual also provides brief narrative job descriptions, and lists professional associations in the field. (DC)

113 A Guidance Manual for the Physically Disabled Two Year College
ARC Applicant. Albany: State University of New York, 1976, 108 pp.
EMP ERIC ED 144 648.
GV
C

This manual was designed to assist in the geographic and vocational placement of the academically qualified, physically disabled student seeking two-year occupational training in New York. It is to be utilized by the student, the counselor, or any other interested individual. It rates each of 48 institutions within the State University of New York and the City University of New York systems as to accessibility and suitability for the handicapped with respect to physical features and supportive services.

114 GEN OI — Fusco, Carol B. Individually Prescribed Program of Instruction for Pupils Who Are Orthopedically Handicapped. Columbia: South Carolina State Department of Education--Office of Programs for the Handicapped, 1977, 451 pp. ERIC ED 140 558.

Intended for teachers of the orthopedically handicapped, the document provides the framework and resource from which to implement individualized educational programs (IEPs). The first two sections cover the rationale for IEPs, definitions of levels of orthopedic handicaps, and program goals. The bulk of the document consists of IEP activities in the following areas: language arts, mathematics, social studies, science, sensory experiences, creative arts, prevocational/vocational, adapted physical education, self help/self concept, life experiences, and leisure time activities. Activities for each area are presented in table form with information which includes developmental level (primary, intermediate, secondary); degree of physical handicap (moderate, severe); behavioral objective; enabling activities; facilities/materials/equipment modifications/adaptations; and materials and references. Additional sections address the topics of task analysis, communication boards, pupil development assessment, and teaching aids. Also provided is a 24-entry bibliography.

115 GEN GV M — Lambert, Roger H., et al. A Bibliography of Materials for Handicapped and Special Education. Second Edition. Madison: University of Wisconsin--Center for Studies in Vocational and Technical Education, 1975, 81 pp. ERIC ED 123 839.

The bibliography contains 1,621 references for materials related to vocational and technical education of handicapped students. Entries are coded by Office of Education Curriculum Codes and Educational Resources Information Center descriptors. Materials can be located by specific skill areas. Each citation usually contains information on title; author; publisher and address; binding and pagination for books; price; and information for films, cassettes, slides and other nonprint materials.

116 EMP GV M — Shworles, Thomas R. Development of Modern Vocational Objectives for Severely Disabled Homebound Persons: Remote Computer Programming, Microfilm Equipment Operations, and Data Entry Processes: A Final Report. Washington, DC: George Washington University--Rehabilitation Research and Training Center, 1973, 372 pp. ERIC ED 118 886.

The project (1968-1973) was undertaken to demonstrate job and earning potential for competitive work of homebound and/or severely disabled persons who otherwise have not benefited from rehabilitation programs as they conventionally exist. In the lifetime of this project, three companies were formed: a non-emergency transportation service for the handicapped, a microfilm service bureau, and a data processing software company. Owned and managed by homebound severely disabled persons, these companies were developing, producing, and distributing goods and services for their community. Established by three young (ages 23-27) wheelchairbound men, the companies employed 47, were in business for 5 years, and were grossing approximately $300,000 during the last year of the project.

117 GEN EMP GV S PS — Jernberg, Donald E. Special Vocational Program for Handicapped Youth and Adults. Revised Edition. Kansas: Salina Area Vocational-Technical School, 1975, 31 pp. ERIC ED 118 798.

The Salina Area Vocational Technical School has a special vocational program which provides selected vocational training courses for students with physical, emotional, or intellectual handicaps. The program offers vocational counseling, placement services, work evaluation, job readiness training, and vocational training tryouts. Vocational training tryout classes (described in terms of length and tasks involved) include: food service, commercial art, aircraft fabrication, offset printing, custodial maintenance, auto-body repair, small engine repair, welding, diesel mechanics, nursing aides, and drafting. Handicapped students who have successfully completed the work evaluation and exploration phases of the special program are then qualified to enter the regular and short-term courses. A training tryout evaluation sheet, an outline of the vocational training objectives and procedures, and a listing of the educational interpreting services available are included.

118 GEN EMP LEG GV S PS — Buontempo, Gregory, et al. Vocational Education for the Handicapped; Initiating or Strengthening Vocational Programs for Handicapped Youth. Trenton: New Jersey State Department of Education--Bureau of Occupational Research, 1974, 7 pp. ERIC ED 113 534.

The philosophy and programs presented are designed to assist New Jersey educators in planning and developing vocational education for the handicapped. An important measure of the success of such education, the handicapped person's ability to get and hold a job, is described. Federal legislation providing for more training for the handicapped is briefly outlined. Twelve categories of handicapped persons are used for educational classification and are defined here: mentally retarded educable, mentally retarded trainable, neurologically impaired, perceptually impaired, emotionally disturbed, socially maladjusted, visually handicapped, auditorily handicapped, communication handicapped, orthopedically handicapped, chronically ill, and multiple handicapped. The recommended team approach to long-term vocational development involving education and counseling is outlined. Five major phases of the vocational preparation of the handicapped form a strategy which has often proven effective: (1) vocational evaluation, (2) self and career awareness, (3) skill training, (4) getting started in a real job, and (5) follow-up. The sequence of programs developed for the handicapped (elementary through high school level and older) includes technology for children, introduction to vocations, employment orientation, work experience and career exploration program, and part-time cooperative employment orientation.

119 Peters, James S., II. Vocational Rehabilitation of the Disabled
GEN and Disadvantaged in the United States and Europe. Hartford:
EMP Connecticut State Department of Education--Division of Vocational
LEG Rehabilitation, 1971, 232 pp. ERIC ED 113 514.
GV
R

The study of vocational rehabilitation of the disabled and disadvantaged in the United States and Europe focuses on the extent to which workshops and rehabilitation facilities meet the needs of handicapped individuals in their adjustment to disablement and to the world of work. The study provides background information and statistics, discusses pertinent national legislation and the steps taken to implement that legislation, summarizes the vocational rehabilitation resources and facilities employed throughout the nation. The study also discusses vocational rehabilitation programs in the U.S. at the Federal level, at the regional level (Region 8), and in the State of Connecticut, and describes in detail 11 model programs in various States. The study closes with a discussion of conclusions and recommendations indicating that although U.S. efforts at vocational rehabilitation are more organizationally structured than those of the European countries discussed, there is still a basic deficiency in the U.S. in making rehabilitation services available to all of those in need of such services. Appended are several Federal and Connecticut laws and directives regarding vocational rehabilitation.

120 White, Thomas R., et al. Vocational Education for the Disadvantaged
GEN and Handicapped in Indiana: A Status Report. Bloomington:
GV Indiana University--School of Education, 1974, 83 pp.
S ERIC ED 106 440.
PS

This study examines educational programs, supported by the Indiana State Board for Vocational and Technical Education, for the disadvantaged and makes recommendations regarding future education for professional personnel involved in such programs. Results suggest that local communities in Indiana show a great variety of approaches in meeting the vocational education needs of disadvantaged and handicapped students. Vocational programs for the disadvantaged and handicapped in Indiana are said to be significantly different in many respects from traditional vocational programs, and, hence not easily comparable; vocational programs for the disadvantaged and handicapped are becoming institutionalized in the total effort in vocational education. Substantial differences are stated to exist in programs within each category program and across categories of programs. It is suggested that vocational teachers of the disadvantaged and handicapped can benefit from teacher education; and that professional development for vocational teachers of the disadvantaged and handicapped must be based on the needs of students, teachers, and programs, taking into consideration the different student populations served and the expressed needs of teachers.

121 Lane, Paul A., et al. Vocational Rehabilitation: A Thera-
GEN peutic Pre-Vocational Skill-Training Program. (Monograph No. 7).
R Connecticut: Bridgeport Vocational Rehabilitation and Cooperative
GV Education Project, 1970, 54 pp. ERIC ED 103 665.

The monograph is concerned with the development of a pre-vocational training program that would (1) be therapeutic; (2) introduce activities which provide success; and (3) implement other activities for developing skills, abilities, interests, and social skills. Essential foundations of an effective program in pre-vocational skill training are presented as well as general and nine specific program objectives. The pre-vocational skill-training program is outlined in terms of program development, (site selection, program financing, and use of existing educational facilities), the selection of instructors, determination of the curriculum, provision of supplies, program characteristics (individualized instruction, nonabstract teaching techniques, flexible scheduling, and interpersonal therapy), and admission and evaluation procedures.

122 Planning Facilities for Physically Handicapped Children. Fifth Annual
ARC Conference. Knoxville: University of Tennessee--School Planning
GV Lab, 1974, 46 pp. ERIC ED 102 763.
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The conference report on planning usable, accessible educational facilities for physically handicapped children features guidelines for eliminating indoor and outdoor architectural barriers. The Tennessee School Planning Laboratory analyzed plans of other states for identifying handicapped students and for providing them with usable facilities, reviewed pertinent literature, and sought advice from experts on the special needs of the physically impaired. The ethical and legal rationale for including disabled students in regular schools is discussed by conference speakers, and general suggestions are offered in connection with vocational education and with options for conversion of available buildings to maximize accessibility. Presented are guidelines for the construction of new facilities in regard to exterior site preparation, such as the provision of easily accessible building entrances and elevators, nonslip ramp surfaces equipped with handrails, walks and curbs that facilitate unhindered movement, and special parking facilities located near buildings. Considered among guidelines for building interiors are recommendations concerning corridor width, stairway design, elevators, drinking fountains and restrooms, and special areas such as cafeterias, gymnasiums, swimming pools, and libraries.

123 Fry, Ronald, ed., et al. Proceedings of the Decatur Seminar.
EMP Stout, Menomonie: University of Wisconsin--Department of
R Rehabilitation and Manpower Services--Materials Development
Center, 1971, 80 pp. ERIC ED 102 307.

The purpose of the seminar was to explore and exchange ideas on the evaluation process by providing a forum for the description of seven of the more highly developed client evaluation programs serving

Illinois' handicapped clients. Program descriptions offer an overview and focus on philosophy, staffing, selection of clients, intake services, methods of client evaluation, reporting, and placement. A major conclusion of the seminar is that staff, in terms of commitment, energy, creative imagination, and expertise, was the critical element in the client evaluation process. Appended materials are included with each program description, providing sample forms, reports, and tests.

124 Work-Study Program for Handicapped Children. Final Report.
EMP Oroville, CA: Butte County Superintendent of Schools, 1974,
GV 54 pp. ERIC ED 100 104.
S

Presented is the final report of a 3-year work-study program to increase the employability of 95 mentally or physically handicapped high school students. Project objectives included determination of requirements for 50 local jobs, development of 50 slide-film sets to provide job task information, assessment of student employability, placement and evaluation of qualified students in appropriate paid work stations, project evaluation, and dissemination of project information. Cited are project strengths (such as successful placement of target students), project weaknesses (such as the need for more job qualification profiles), and recommendations (for workshops/conferences and meetings with local school officials).

125 Project MODEL (Mobile Occupational Development Education Laboratories):
GEN First Annual Report. Boston: Massachusetts State Department of
EMP Education--Division of Occupational Education; and, Westford,
GV MA: Nashoba Valley Technical High School, 1973, 423 pp.
N ERIC ED 096 545.

The report presents a record of the first year's activities of Project MODEL (Mobile Occupational Development Education Laboratories). The document serves as a manual of policies and procedures for the project as well as a study of the successes and difficulties of the inservice program to be used to develop inhouse, ongoing programs in institutions and agencies that serve the handicapped and disadvantaged. It is an alternative delivery system for career development in terms of occupational training for the institutionalized, handicapped, and disadvantaged populations in Massachusetts. Four mobile multimedia laboratories, teacher coordinators, and aides provide students with "hands-on self-instructional learning." Instructional programs are compact, lasting from two to twelve weeks. Educational opportunities in each mobile unit are unlimited and diversified enough to meet the basic needs of most students.

126 Final Report of the Evaluation of the Summer 1970 Exploratory
GEN Vocational Training Program for Physically Handicapped and
EMP Mentally Retarded Pupils. ESEA Title I. New York, NY: Teaching
S and Learning Research Corporation, 1970, 34 pp. ERIC ED 066 525.

The general goal of this summer program, funded under Title I, Elementary and Secondary Education Act, was to provide an instructional vocational program which would meet the needs of handicapped students. Specifically, the program set out to: (a) provide experiences in shop areas which will provide in manipulation of materials and contribute to growth in motor control and manual dexterity; (b) provide experiences in group interaction in shops and opportunities for following through on individual and group projects which will contribute to growth in self-direction; and, (c) provide opportunities for success and achievement in exploration of new media, materials, and equipment. The evaluation was performed by a collection of information from parents, teachers, and students, and by observations by evaluation staff members of shop settings and activities.

127 Mossman, Marshall L., ed. A Program for Training the Student with
EMP Special Needs. Flint, MI: Genesee Area Skill Center, 1972, 113 pp.
SV ERIC ED 064 823.
S

The booklet is reported to be designed for use as a source book by individuals concerned with establishing special needs vocational education programs to train mentally and physically handicapped students in semi-skilled occupations. General considerations presented cover the goal of releasing human potential, overall objectives of the program, psychological guidelines relating to knowing the child, readibility of the textbook, curriculum guidelines, and evaluation procedures. Curriculum areas then included are health occupations, landscaping, graphic arts, plant maintenance, welding, driver education, small engine mechanics, domestic appliance repair, business occupations, auto mechanics, and auto body mechanics. Usually provided for each curriculum entry are a course description, listing of performance objectives, course outline, and operational notes. Concluding information concerns student personnel services, placement and program counselor, and psychologist. Appended are a chronology of the special needs program and operational forms.

128 Love, Don. Vocational Education and the Physically Handicapped--Voices
GEN and Views. South Pasadena: Hoskins and Associates; and,
EMP Los Angeles: Los Angeles City College, 1971, 128 pp.
GV ERIC ED 063 472.
C

This report is an attempt to define the role of the junior/community college in providing vocational training for the physically handicapped. In identifying this role the report offers: (1) an in-depth discussion of the national concern of vocational education for the handicapped, (2) findings from a review of the existing vocational education programs for the disabled, (3) an analysis of the handicapped population related to the junior college, (4) suggested solutions to problems, (5) labor market trends and needs, (6) program planning, (7) implementation and evaluation of support service such as counseling and guidance, and (8) future needs and program development. In outlining a course of action, the report categorizes the basic needs of handicapped students as medical, social, economic, and educational.

129 Project MODEL (Mobile Occupational Development Education Laboratories): Second Annual Report. Boston: Massachusetts State Department of Education, 1974, 82 pp.
GEN
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The report presents a record of the second-year activities of Project MODEL (Mobile Occupational Development Education Laboratories). Included are a brief description of the project and an examination of the various operation activities; components, the development of nine objectives, their status, and their disposition; financial verification; and a projection. The project was designed as an experimental program to help develop in-house, on-going programs in instiuttions and agencies which serve the handicapped and disadvantaged. Four mobile laboratories (business education, small engine repair, distributive education, and vocational education) are staffed with teachers and aides, and deliver an alternative system of audiovisual, self-paced, individualized instruction which provides the stimuli for learning experiences involving personal interaction, exposure, training, and evaluation.

130 McKinlay, Bruce, and et aL Career Education at O.S.S.D. A Study of Needs and Plan of Action for Career Education at Oregon State School for the Deaf. Salem: Oregon State Board of Education--Special Schools Division, 1970, 141 pp. ERIC ED 052 351.
GEN
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Recognizing a need for improvement in their vocational education offerings, the administration of the program for the deaf appointed a study team representing backgrounds including education of the deaf, manpower research, public administration, and occupational analysis. This report presents their specific analysis and recommendations for a comprehensive plan for career education which will lead to higher and more diversified employment for the deaf. The plan calls for guidance and exploratory opportunities and puts heavy emphasis on the student's choice of a career field. It integrates "academic" and "vocational" courses and individualizes the program. Reports based on an extensive analysis of both educational opportunities and labor market conditions are included in the report.

131 Handbook for Evaluating Disadvantaged and Handicapped Students for Planning Occupational Education Programs. Raleigh: North Carolina State Board of Education--Department of Public Instruction, 1970, 43 pp. ERIC ED 052 342.
GEN
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This handbook is intended for public school educators who are attempting to identify students with special education needs, diagnose specific causes, and plan programs to meet these unique needs. To help in the evaluation of disadvantaged and handicapped students, the document presents a descriptive list of conditions and characteristics of these students, suggested procedures for evaluation, sources of information to be used by the evaluation committee, and basal instruments.

132 Vocational Readiness for Young Disabled Students in New York City: Final Report of a 5-Year Collaborative Study. Albany: State University of New York--State Educational Department, 1968, 198 pp. ERIC ED 042 318.
GEN
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To determine if severely handicapped children were in fact not ready to utilize vocational services when they leave school (due to lack of pre-vocational work experience), handicapped children were provided two years of vocational counseling and sheltered work experience. The sample of 280 children (ages 14 to 17 years), were divided into experimental (Es) and control (Cs) groups in each disability grouping (physically handicapped, educable mentally handicapped, and emotionally disturbed). The Es received vocational service two days a week for two years. All children were assessed before and after the program and 12 months later. Results showed that the physically handicapped Es had higher potential for service than the physically handicapped Cs. The physically handicapped benefited the most from the program. Ethnic and socioeconomic factors were important determiners of progress (the pre-vocational service was least effective with children facing problems of the proverty subculture), and more integration with the child's educational program is recommended. Appendixes include forms, case histories, many tables, and additional information.

133 Brandon, George L., ed. Research Visibility: The Disadvantaged and the Handicapped. Washington, DC: American Vocational Association, 1970, 16 pp. ERIC ED 038 540.
GEN
GV
M

Fifteen reviews of conference reports, research and demonstration projects, and surveys pertain to the need for and applicability of vocational education for the disadvantaged in general, and specifically for disadvantaged adults and youth, and the handicapped. "Plain Talk," a continuing column by the editor, discusses the need for vocational educators to achieve a greater degree of cooperative organization in research and research utiliztion. A bibliography provides information on availability of studies reported in this issue and 36 additional studies.

134 Love, Harold D. Exceptional Children in a Modern Society. Second
GEN Edition. Dubuque, IA: Kendall/Hunt Publishing Company (135 South
M Locust Avenue, 52001), 1967, 104 pp. ERIC ED 036 004.

This attempt to cover the entire spectrum of exceptionalities in children aims at both graduate and undergraduate students. Discussed are a background of identification techniques for exceptionalities and the screening and education of the gifted child. Included are sections dealing with the classifications, history, types, education, and future possibilities of the following handicaps: the mentally retarded, the visually impaired, those with speech problems, the aurally impaired, the orthopedically and health impaired, the emotionally disturbed, and those with brain dysfunction. Attention is also given to parent attitudes toward their handicapped children and plans for special education. Bibliographies follow each chapter.

135 Status 1968: Report of the Special Education Branch, Los Angeles
GEN Unified School District. CA: Los Angeles Unified School District--
S Publications Secretary, Administrative Services Office,
Los Angeles City School Districts, 450 North Grand Avenue,
Los Angeles, CA 90054. ERIC ED 035 999.

Included in the report on special education services of Los Angeles schools are chapters on an overview of the special education branch programs; the educationally handicapped, aphasic, and trainable mentally retarded; development centers for handicapped minors; the aurally and visually handicapped; the orthopedically handicapped or other health impaired; speech and hearing; psychological services; occupational training and rehabilitation services; and specially funded programs. Statistics include teacher and pupil enrollments; pupil handicaps; pupil age, race, reading ability, family size, and other characteristics; special aids and services; speech and hearing; pupils served, and physically handicapped students who have received driver instruction.

136 Guidelines for a Cooperative School Program; Education - Habilitation.
GEN Beaumont, TX: Region V Education Service Center, 1968, 88 pp.
GV ERIC ED 033 525.
R

The following guidelines for establishing cooperative school programs are presented: investigating local needs, informing the public, selecting the coordinator, conferring with the counselor, explaining the program to school personnel, informing and involving parents, surveying on-campus and off-campus training, and establishing the evaluation committee and the responsibility of school personnel. The characteristics and job description of the vocational adjustment coordinator are discussed along with his duties of supervising job training and placement and of utilizing community resources. His responsibilities in the classroom, in counseling, in record keeping, and in suggested activities throughout the year are considered. The duties of the vocational rehabilitation counselor are also listed.

A revised state rehabilitation program involving the administrative organization and the purpose is described.

137 Means, Howard, and Ron Hammett, eds. Rehabilitation Programs in the
GEN Public Schools: A Handbook for Counselors and Supervisors.
EMP Washington, DC: Office of Education and Rehabilitation Services
GV Administration, 1968, 77 pp. ERIC ED 033 490.
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The work experience program of the Department of Vocational Rehabilitation, which provides vocational, educational, and social experiences for mentally handicapped adolescents while they are still in the school setting, is described. Information is given on the Department's responsibilities, on methods used to bridge the gap between the student's school experiences and gainful work experiences, and on ways to assist in the evaluation of the student's potential and to bring ancillary services to the student which schools cannot provide. Program funding, administrative structure, guidelines for implementing the program, and descriptions of the in-school work experience program, the physically disabled program, and the junior high program are outlined.

138 Young, Earl B., ed. Vocational Education for Handicapped Persons:
GEN Handbook for Program Implementation. PA: University of Pittsburgh
LEG 1969, 131 pp. ERIC ED 032 695.
GV
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Information on vocational education for the handicapped considers the following: different types of handicaps; cooperation and interagency involvment; services available from vocational rehabilitation; a model for a state-wide cooperative agreement; programs and services; and provision of services in rural areas. Community involvement in vocational education services for the handicapped is discussed as are considerations in planning vocational education for the hearing impaired, for the visually impaired, and for the physically handicapped. Personnel preparation, utilization, and interactions are also discussed. Regional instructional materials centers and agencies and organizations in the field of the handicapped are listed; the Vocational Education Amendments of 1968 and references are included.

139 Stark, Edward S., ed. Special Education; A Curriculum Guide.
GEN Springfield: Charles C. Thomas, (301-27 Lawrence Avenue,
M Springfield, IL 62703), 1969, 256 pp. ERIC ED 031 010.

Curriculum guides are presented for three areas of exceptionality. Those for the mentally retarded include guides for the educable on the pre-primary, primary, intermediate, and junior high school levels, and in the work study program and the sheltered workshop; a guide for the trainable retarded is also provided. Guides for the brain injured treat the elementary and junior high level; a guide describes a curriculum for the severely physically handicapped. A discussion of rounding out the curriculum is included.

140 Establishment of a Vocational Evaluation-Work Adjustment Unit. Final
GEN Report. MA: Springfield Goodwill Industries, Inc., 1967, 137 pp.
EMP ERIC ED 023 855.
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A multi-phased demonstration and research project was established to assist with rehabilitation problems of severely disabled and handicapped persons. Services made available were: (1) evaluation of the individual's vocational potential, (2) work and personal adjustment programs, (3) training courses not available through traditional sources, (4) guidance in placement service, and (5) research in evaluation and testing procedures. General objectives were: (1) to search for and apply knowledge, methods, and techniques previously acquired, (2) to increase the number of employable handicapped, (3) to strengthen and increase community resources for vocational rehabilitation, and (4) to initiate programs of research within problem areas. Some results were: (1) development of a system of simulated work tasks for evaluation of an individual's vocational potential for rehabilitation, (2) establishment of counseling and guidance services resulting in a combined personal adjustment-work adjustment approach to help the client achieve an optimal adjustment to the world of work, (3) initiation of a program of on-the-job training with emphasis on the acquisition of skills in areas for which training was not readily available through traditional local sources, and (4) determination that a placement counselor is necessary for the rehabilitation program.

141 Services for Children with Cerebral Palsy: A Guide for Public Health
MH Personnel. New York: American Public Health Association, Inc.,
M (1740 Broadway, New York, NY 10019), 1967, 115 pp.
ERIC ED 021 374.

Directed to persons in voluntary or official agencies and to planning groups whose decisions determine or affect the extent, coverage, content, and operation of community services to children who are handicapped by cerebral palsy. Basic concepts and facts about cerebral palsy, causes and preventions of the disease, casefinding, diagnosis, program planning, and methods of treatment and guidance are described. Special services and facilities at the community level and the organization of community resources are discussed. The need for program study and evaluation and the role of research are presented.

142 Demond, Albert L. Progress Report of Vocational-Technical Education
GEN Program Development for Persons with Special Needs by States.
Discussion copy. Washington, DC: Office of Education (DHEW),
1968, 220 pp. ERIC ED 017 744.

Programs developed since the passage of the Vocational Education Act of 1963 are reported for each state, Guam, Puerto Rico and the Virgin Islands. Each report includes introductory information and the occupational areas in which training is being offered. A large number of successful programs are getting substantial results in reducing school dropouts, increasing school achievement and attendance, rehabilitating school-leavers and unemployed youth and adults, regenerating school "sit-ins" with new motivation, and successfully placing persons in entry-level jobs. The appendices list (1) the estimated total expenses for vocational education for the fiscal year 1968, (2) projected program activities for new teachers, 1968, (3) classification of persons with special needs, (4) a summary of major points in developing programs for persons with special needs, and (5) a directory of state officials responsible for the special needs programs.

143 Burkridge, Hester, and Merle Karnes. An Evaluation Study with
GEN Recommendations. Titusville, FL: Brevard County Board of
M Public Instruction, 1966, 95 pp. ERIC ED 016 312.

Every public school with special education classes in the county system was visited by specialist consultants during a 2-week period. Parochial and private schools were also contacted. The survey was concerned with provisions and services for the trainable retarded, the educable retarded, the deaf and hard of hearing, the socially and emotionally maladjusted, the visually handicapped, the gifted, speech therapy, the child with learning disabilities, pre-vocational training, and school work. The community-school relationship was also analyzed. Recommendations accompany the discussion of each program. An appendix of administrative plans is included.

144 Jones, Mona, and Ditha Kandel. Work Adjustment as a Function of
GEN Occupational Therapy, Study Course V. New York: American
GV Occupational Therapy Association (Wm. C. Brown Book Company,
R 135 South Locust Street, Dubuque, IA 52001), 1964.
ERIC ED 015 602.

Resulting from one of six 1-week study courses following the Third International Congress of the World Federation of Occupational Therapists in 1962, this manual presents a broad review of the philosophy, role, and techniques of occupational therapy in the field of pre-vocational evaluation, vocational training, and sheltered workshops. Nineteen lectures by therapists from several countries describe occupational therapy programs related to work adjustment for the physically handicapped and for the former psychiatric patient. Forms used in performance testing, photographs of skill testing and work situations, and a listing of appropriate films are included. A final lecture summarizes content of the study course. Some lectures cite references.

145 Vocational Education for Persons with Special Needs. Sacramento:
GEN California State Department of Education, 1966, 47 pp.
GV ERIC ED 011 929.
M

A survey of research was made to identify the vocational needs of individuals with special problems. Completed studies, research-in-progress, and current proposals were included. Topics covered in this summary are (1) aging, (2) continuation education, (3) the culturally deprived, (4) delinquency, (5) dropout, (6) emotional disturbance, (7) low ability, (8) mental retardation, (9) minority racial groups, (10) physically handicapped students, (11) small schools, (12) socioeconomic studies, (13) underachievers, and (14) work opportunities. A bibliography is included.

146 GEN GV M Campbell, Robert E., ed. Guidance in Vocational Education--Guidelines for Research and Practice, a Report of a National Interdisciplinary (Ohio State University, January 12-14, 1966). Columbus: Ohio State University--Center for Vocational and Technical Education 1966, 190 pp. ERIC ED 011 922.

In response to the need for effective programs of vocational guidance, the center invited nationally recognized leaders from several disciplines to develop guidelines for initiating and improving such programs. Addresses included--(1) "An Interdisciplinary Approach to Vocational Education and Guidance," (2) "Overview of Research and Development Activities--Division of Adult and Vocational Research," (3) "Manpower and Labor Economics--Implications for Guidance in Vocational-Technical Education," (4) "A Sociological Approach to the Analysis of Preparation for Work Life," (5) "Psychological Job Adjustments--Implications for Guidance in Vocational-Technical Education," (6) "Exploration in Computer-Assisted Counseling."

147 GEN S Placement of the Severely Handicapped. Institute: West Virgina Research and Training Center, and Washington, DC: Social and Rehabilitation Service, 1975, 70 pp.

This guide for counselors, which contains resources and practical suggestions on job placement, is suitable for use with all handicapped persons, as the basic techniques are the same regardless of the intensity of the handicap. The looseleaf collection of materials, developed in 1975 by the Institute on Rehabilitation Issues, is designed as a starter volume to which counselors can add pertinent state and local placement information. The first three units deal with the role of placement in the overall counseling effort. Innovative means of identifying new job markets, matching a client to a job, and presenting information about the client to an employer are presented. A range of community resources for the handicapped is suggested for use by the counselor. Federal, state and local legislation affecting rehabilitation efforts are discussed briefly.

148 EMP VI Barnhart, Robert H. The Training and Placement of Blind Persons in Service Jobs in Hospital Settings. New York: American Foundation for the Blind, 1970, 106 pp.

The project was designed to develop and validate methods and techniques for providing on the job training of blind persons in service jobs in hospital settings. A 800-bed hospital in New York City was selected to provide the training. Twenty-two job operations in four service departments were determined to be suitable for training blind persons. Job descriptions were prepared and referrals were invited from rehabilitation agencies. The report includes information pertaining to the types of jobs most suited to the blind in a hospital setting and the skills required for fulfilling those jobs.

149 HI PS Hurwitz, Sidney N. Habilitation of Deaf Young Adults. Final Report. St. Louis, MO: Jewish Employment and Vocational Service, 1971, 85 pp.

A 5-year demonstration project by the Jewish Employment and Vocational Services in St. Louis, Missouri, concerned with the vocational rehabilitation of young, post-school deaf adults revealed that almost 50 percent of the trainees in the program were multiply handicapped. The client group as a whole was characterized by gross immaturity in personal, social, education, and vocational attainments. The rehabilitation program employed individualized work preparedness and socialization training procedures which involved interdisciplinary and agency-community programming. More than two-thirds of the trainees were placed in remunerative jobs in competitive industry on a continuing basis. The success of this program should encourage the development of similar programs until the time arrives when more traditional methods of deaf education can produce graduates who are readily absorbed in the commercial job market.

150 GEN EMP R Dunn, Dennis J., Lawrence Currie, Fredrick Menz, Norman Scheinkman, and Jason Andrew. Placement Services in the Vocational Rehabilitation Program. Stout, Menomonie: University of Wisconsin. Washington, DC: Social and Rehabilitation Service.

This monograph develops a systematic approach to the delivery of placement and post-placement services in the vocational rehabilitation program. The vocational rehabilitation process is conceptualized as one which facilitates the transition into work of disabled persons, and which provides those specific services necessary to assist disabled persons at all stages of this transition process. Consequently, a concern with placement and eventual job adjustment must be evident at all stages of the process, and not merely confined to the end stage. The report concludes with a number of specific administrative, program, and research recommendations to improve placement services.

151 GEN Lobes, Carol, David Pedro, David Hyson, Beatrice Chatman, and James Niemeier. Project Skill: Demonstration Project on Employment of Handicapped Persons in State Civil Service Positions. First year report. Madison: Wisconsin State Bureau of Human Resources Services, 1975, 60 pp.

The report describes the training and placement activities carried out by Project Skill during the grant year April, 1974 - March, 1975.

Topics include: job development, screening and placement, supportive services, training for trainees and supervisors, volunteers and advisory board. Includes descriptions of characteristics of individual trainees.

152 Wilson, Thurlow R., Jean A. Richards, and Deborah H. Bercini. Disabled
GEN Veterans of the Vietnam Era: Employment Problems and Programs.
R Alexandria, VA: Human Resources Research Organization, 1975,
329 pp.

The study examines the problems disabled Vietnam-era veterans face when looking for work. The central element is a survey of Vietnam-era veterans with service-connected disabilities. Other information sources include public and private employers, State Employment Service personnel, Veterans Administration personnel, and representatives of veterans' service organizations. The relationship between the Employment Service and the Veterans Administration in providing services to disabled veterans is discussed. Several recommendations are made for additions to, and changes in, employment assistance programs for disabled veterans.

153 Rehabilitation of the Handicapped Programs, 1976. Hearings before the
GEN Subcommittee on the Handicapped of the Committee on Labor and
LEG Public Welfare, United States Senate, Ninety-Fourth Congress,
R Second Session on Oversight Hearings on Rehabilitation of the
Handicapped Programs and the Implementation of Same by agencies
under the Rehabilitation Act of 1973. Part 1. February 20, 23,
24, 26; March 30, 1976. 1976, 627 pp. ERIC ED 134 687.

The full texts of all prepared statements and supplemental materials presented during five days of oversight hearings held on rehabilitation of the handicapped programs and implementation of these programs by agencies under the Rehabilitation Act of 1973 are contained in this document. Statements are made by (1) state and local directors and other representatives of various institutions and organizations for the physically and mentally handicapped, and (2) representatives from state departments of education, federal agencies, state and national advisory councils, and various professional organizations. The statements, exhibits, and panel discussions present national, local, and institutional concerns regarding the conditions of rehabilitation programs for the handicapped. Additional information is included in the form of articles, publications, official communications, questions and answers, and selected tables.

154 Cortes, Michael E. Handicapped Migrant Farm Workers. Characteristics
GEN of Disabled Migratory and Seasonal Agricultural Workers and
R Their Families, Impact of the State/Federal Vocational Rehabilitation
Program, and Strategies for Expanding Services. Washington, DC:
Interstate Research Associates, Inc., 1974, 137 pp.

After surveying the vocational rehabilitation (VR) needs of disabled migratory and seasonal farmworkers in the U.S., a national plan to meet those needs was developed, in cooperation with designated state agencies. A random cluster sample of farmworkers was interviewed to determine service needs. Additional planning data were gathered by interviews with rehabilitation counselors and administrators, and with the staff of other agencies and organizations. This report presents information pertaining to: background characteristics of migratory and seasonal farmworkers, incidence of disabilities among farmworkers, types and severity of disability, rehabilitation services for disabled migrants, racial/ethnic classification of farmworkers, income and household size, seasonal migration, resettlement for vocational purposes, education, language ability and preference, awareness of VR and other service programs, factors affecting service delivery, agency priorities and incentives for counselors, current VR programs for farmworkers, and barriers to successful rehabilitation. The proposed service delivery system is described.

155 Educational Aids for Visually Handicapped. Louisville: American
VI Printing House for the Blind, 1969, 27 pp. ERIC ED 030 242.
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Listings specifying source and cost are provided of tactile aids and materials designed for the visually handicapped. Items are presented in the following categories, supply sources and catalogs for aids--braille devices: including duplicators, reading and writing aids, reading readiness materials, and writing machines, slates, and styluses; deaf blind aids: electronic devices: games, including general and card games, chess and checkers, and puzzles; mobility aids: optical aids and instruments: paper and binders: personal aids: preschool devices and materials: reading aids: and recording and sound equipment. Additional categories of listings are in the subject areas of geography and social studies, handwriting and typewriting, health education, language arts, mathematics (general, counting, geometric, linear measurement, slates, and time), music, physical education, practical arts (cooking and sewing), science, and vocational education (industrial arts).

156 CEC Selected Convention Papers: Annual International Convention;
VI Visually Handicapped. Washington, DC: Council for Exceptional
S Children, 1968, 45 pp. ERIC ED 031 857.

Presentations on the visually handicapped include the following: curriculum for teachers of the visually handicapped by Evelyn Rex; a preparatory college program for visually impaired students by Walter Fitzgibbon; prevocational planning and rehabilitation for the visually handicapped by Mary Bauman; New Jersey's organization, cooperation and coordination of programs for visually handicapped Vahram Kashmanian; teacher education by Clarice Manshardt; and research, development trends, and translation into practice of sensory aids by Leslie Clark. Abstracts included in the selection are: multiply impaired blind children as a national problem by Milton Graham; state organization, cooperation and coordination of programs for visually handicapped by Robert Cain; and teacher preparation for multihandicapped children by Philip Hatlen. This unit of reports is available in microfiche.

157 Kafafian, Haig. Study of Man-Machine Communications Systems for
01 Disabled Persons (The Handicapped). Volume IV. Washington, DC:
NM Cybernetics Research Institute, Inc., 1971. 90 pp.
M ERIC ED 070 223.

The volume contains experimental instructional materials designed for teacher and handicapped student use with two man-machine communications systems, Cybertype and Cyber-Go-Round, developed as educational aids for the severely handicapped. Cybertype is a writing machine with various possible configurations of portable keyboards with a reduced number of keys. This permits written communication by persons who lack the motor ability or coordination to write legibly or to operate a standard typewriter keyboard. Lesson plans and exercises for learning the Cybertype keyboard constitute the major portion of the document. Also included are pilot experimental printed and pictorial slide message units for the Cyber-Go-Round system, a medium of communication utilizing slide-messages. See also: ED 070 224, ED 070 225, and ED 070 226.

158 "Consumer Participation; Policy Statement." New York, NY: American
VI Foundation for the Blind, 1972, 3 pp. ERIC ED 087 179.

Presented by the American Foundation for the Blind are background information and a policy statement on consumer participation in the area of services for the blind. Noted is past significant leadership blind persons have manifested in surmounting physical, social, and economic problems. Considered are ways to make known the consumer's point of view, such as participating in the network of community services by serving on the board of an agency for the blind. The policy statement holds that implementation of consumer participation is essential to the field of work for the blind and that involvement of users in an agency's planning can increase effectiveness in developing and delivering services.

159 Etier, A. Faborn. A Study to Determine the Effectiveness of Electron-
VI ically Paced Typewriting Instruction for Blind Students.
DO Washington, DC: National Center for Educational Research and
S Development (DHEW/OE), 1973, 97 pp. ERIC ED 086 221.

Electronically paced materials for teaching blind students to typewrite were written and taped. The effectiveness of the materials was tested, and a teacher's manual prepared. A control group was taught by conventional methods, while an experimental group used the electronically paced materials. These consisted of ten audio-taped programs for mastery of the alphabetic keyboard, 16 programs for skill development, and one program for the number keys. All students, who ranged from grades 6 through 10, moved at their own paces. Test results showed that the experimental group achieved greater understanding of the typewriter and how to manipulate it, demonstrated superior posture and stroking techniques, learned faster, and developed greater typing proficiency, speed and control. Since these new instructional materials provided students with an effective means of communication and a marketable job skill, it was recommended that schools and counselors for the blind be informed of their availability and that additional programs be developed for teaching blind students to apply these typewriting skills for a variety of specific business and personal purposes.

160 National Conference on Career Education. January 15-17, 1973, New
VI Orleans, Louisiana. New York, NY: American Foundation for
M the Blind, 1973, 45 pp. ERIC ED 082 407.

Presented are reports from 10 states on present status of and future plans for career education for blind and visually handicapped children and adults. The reports represent a major aspect of a conference sponsored by the American Foundation for the Blind in which state leaders in special education, rehabilitation, and vocational education considered strategies for collaborative efforts.

161 Twenty-Five Years of Volunteers in Partnership. Washington, DC:
GEN President's Committee on Employment of the Handicapped, 1972,
M 67 pp. ERIC ED 072 210.

On the occasion of the 25th anniversary of the President's Committee on Employment of the Handicapped, this brochure traces the Committee's beginning and development after World War II. The individuals, groups, programs, and legislation involved in helping the handicapped to a better life are discussed in the narrative.

162 Program Resources for Secondary Handicapped. Hightstown, NJ: North-
GEN east Area Learning Resource Center, 1976, 258 pp. ERIC ED 136 502.
S

The resource guide provides information on 79 exemplary secondary programs serving handicapped youth in seven states and on instructional materials for use in a resource room or learning resource center collection in secondary and vocational education for the handicapped.

163 Casey, Edwin R. Developing and Implementing a Vocational Education
GEN Awareness Program for Handicapped Students in the Cherokee High
GV School. 1977, 54 pp. ERIC ED 141 998.
S

A practicum was developed at Cherokee High School (Georgia) for providing equal opportunities for mildly handicapped students to gain competencies necessary to succeed and advance in a chosen occupation. The curriculum involved the following: the high school principal, vocational specialist, the interdisciplinary team, public relations, the 16 students (meeting criteria which included inability, because of handicaps, to succeed in regular vocational programs), scheduling in the vocational education awareness program, counseling of the students and parents by the vocational specialist, placement of the students in a personalized program, the instructional program made up of instructional options which included skill training, full time employment, and placement in sheltered workshops, and a training plan for each student which outlined tasks and expectations. Measures of students' attendance, grades, personal qualities, employment, and occupational task performance supported the effectiveness of the curriculum.

164 Dillman, Caroline M. and Patricia Maloney. Mainstreaming the Handicapped
VI in Vocational Education. Serving the Visually Handicapped.
GV Palo Alto, CA: American Institutes for Research in the Behavioral
S Sciences, 1977, 65 pp. ERIC ED 142 766.

One of a series of seven modules developed to improve the knowledge and skills of vocational educators who are or will become involved in the instruction of handicapped students in regular (mainstream) classes, this module is intended for inservice training of vocational educators (including administrators, coordinators, counselors, and preservice trainees) working at the secondary level and focuses on developing a general understanding of the goals, components, and approaches used in regular vocational education programs involving legally blind and partially seeing. Specifically, the purposes are (1) to familiarize vocational educators with particular handicapping conditions of the legally blind and partially seeing including terminology, variations in severity, and differing capabilities of these students; (2) to outline and discuss plans for individualizing instruction so that it will meet the needs of visually handicapped students and will simplify the educator's task in teaching these students; and, (3) to provide vocational educators with resource and referral agencies and with various publications that can aid them in dealing with visually handicapped students.

165 Phelps, L. Allen. Competency-Based Inservice Education for Secondary
GEN School Personnel Serving Special Needs Students in Vocational
GV Education: A Formative Field Test Evaluation. Urbana: Illinois
M University, Department of Vocational Technical Education, 1976,
401 pp. ERIC ED 133 436.

A detailed formative evaluation was conducted on a series of seven competency-based inservice modules designed for use by currently employed vocational and special educators. The topics of the module series focused on instructional development and on coordination of services and programming for special needs students in secondary programs. A series of major questions was developed which addressed the evaluation of the competencies included in the modules, formative interim evaluation, and product-outcome evaluation.

166 Franklin, Barbara. Inservice Training Program for Teachers and Aides
HI of Deaf-Blind Children, Summer, 1975. Sacramento: California
VI State Department of Education; and, Southwestern Region Deaf-Blind

Presented are notes taken from a 6-week inservice training program for 30 teachers and 30 paraprofessionals who work with deaf-blind children. Entries are divided into two sections--lectures and minicourses.

167 Staats, Elmer B. Training Educators for the Handicapped: A Need to
GEN Redirect Federal Programs. Washington, DC: Comptroller General
GV of the U.S., 1976, 69 pp. ERIC ED 178 988.
M

Reviewed are the programs administered by the Office of Education, Department of Health, Education, and Welfare to train educators of the handicapped with emphasis on the increasing need for training of regular classroom teachers to deal with handicapped students and the need for vocational education for the handicapped. Outlined are needs for improved evaluation and dissemination of information resulting from special development·l projects.

168 Proceedings of the Annual National Clinic on Technical Education (13th,
GEN Monroe Community College, Rochester, New York, March 24-26, 1976).
EMP Delmar, NY: American Technical Education Association, Inc., and
ARC Washington, DC: Bureau of Occupational and Adult Education (DHEW/OE),
1976, 273 pp. ERIC ED 138 741.

The keynote address, "Productivity as a Means of Economic Development," by Donald C. Burnham, and 20 other conference presentations on technical education are included in these proceedings. Titles include: Erasing Architectural Barriers for the Disabled/Handicapped; Innovations in Technical Education: Preparing the Handicapped for Productive Careers; and Employing the Handicapped/Disabled. The names and addresses of conference participants are listed, along with conference exhibitors and their reporesentatives, and a copy of the conference program is included.

169 Foster, June C. and et al. Guidance, Counseling, and Support Services
GEN for High School Students with Physical Disabilities: Visual,
S Hearing, Orthopedic, Neuromuscular, Epilepsy, Chronic Health
Conditions. Cambridge, MA: Technical Education Research Center,
1977, 795 pp. ERIC ED 149 561.

Intended for use by high school guidance personnel, the two volumes provide general information and a resource guide on physical disabilities. The first section provides an overview of each of the physical disabilities and health problems. The section on coordinating the delivery of services gives information on strategies for planning, coordinating, and delivering services; inservice training; and materials. Personal adjustment is discussed in terms of attitudes toward persons who are physically disabled, self concept, adjustment to physical disability, sexuality and family life, development of independent living skills, development of recreational interests and skills, interpersonal relationships, group counseling, group bibliotherapy, and personal adjustment materials. Educational placement, course selection, and architectural accessibility are among topics considered in the section on education planning. A chapter on career development and guidance examines such topics as special concerns in counseling disabled students, job seeking, and work oriented activities. Discussed in relation to vocational assessment are sites and components of vocational assessment and work adjustment.

170 Project Volunteer Power: Volunteers Serving the Job Needs of the
GEN Handicapped. Final report. Washington, DC: President's
EMP Committee on Employment of the Handicapped, 1972, 75 pp.
ERIC ED 102 359.

The report covers the activities, results, and lessons learned in a project to test a new approach in developing greater opportunities in employment of the physically handicapped, mentally retarded, and mentally restored by harnessing the resources of leading volunteer women's organizations at the local level on a practical, planned basis. Project activities geared toward generating opportunities for handicapped men and women were undertaken in three pilot cities (Birmingham, AL; Minneapolis, MN: and Malden, MA). Numerous lessons learned in many areas as a result of experience gained during the project are described, with reference to their implications for further development, particularly where the use of volunteers would be especially valuable.

171 Wilson, Thurlow R., and John A. Richards. Wanted: Jobs with Fair Pay
GEN for Veterans with Disabilities. Alexandria, VA: Human Resources
EMP Research Organization, 1974, 48 pp.
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This booklet, using a question-answer format, presents research findings on the employment of Vietnam-era veterans with service-connected disabilities. The areas covered deal with (1) the kinds of employment difficulties faced by various disabled veterans, (2) how various disabled veterans find jobs, (3) job development and placement help which various disabled veterans want, (4) the success of organizations, such as the State Employment Service and the Veterans Administration, in providing employment help to disabled veterans, (5) the nature of employer resistance to, and support for, hiring disabled veterans, (6) the arrangements and accommodations the average employer makes for the disabled veterans on the job, and (7) what outstanding employers of the handicapped are doing. The guide also includes case histories of four disabled veterans and a listing of training and employment programs to assist disabled veterans.

172 Wilson, Thurlow R., and John A. Richards. Jobs for Veterans with
GEN Disabilities. Manpower R & D Monograph 41. Alexandria, VA:
EMP Human Resources Research Organization, 1975, 45 pp.
GV ERIC ED 128 589.
R

Research findings on the employment of disabled veterans in a practical format are presented for people interested in the goal of equal employment opportunity for disabled veterans--job developers, vocational counselors, service officers of veterans' organizations, employment service administrators, and employers. The guide contains findings from a Human Resources Research Organization study conducted to identify and explore possible solutions for major problems veterans with service-connected disabilities encountered in seeking and holding jobs.

173 Gardner, David C., and Sue Allen Warren. Career Education Potential
EMP for Students at the Massachusetts Hospital School in Canton.
GV An Evaluation of Current Program and Proposal for the
R Development and Implementation of a Career Education Program.
Boston: Massachusetts State Department of Education (Divison
of Occupational Education), 1975, 176 pp. ERIC ED 117 454.

Focusing on the career education potential of physically handicapped individuals at Massachusetts Hospital School (MHS), the project included a current population assessment, a survey of employment prospects, and career education resources for physically handicapped students. Based on a series of data collection procedures, 18 career education recommendations are offered for MHS. A questionnaire (23 percent return) to 434 state firms to determine the kinds of businesses and types of jobs employing the physically handicapped indicated many employers appeared unaware of the potential of physically handicapped employees. Findings of a national survey to 51 Directors of State Easter Seal Societies (24 percent return) and 50 State Commissioners of Education (42 percent return) to determine successful occupations of physically handicapped persons (coded by handicapping condition and listed under occupational clusters) showed that a wide variety of careers are open to physically handicapped persons in Massachusetts and the United States. The program/population study covered: physical facility, equipment, records, handicapping conditions, academic aptitude/curriculum, personality traits (High School Personality Questionnaire), and school programs. Findings of a questionnaire to graduates of 1968-1973 classes (53 percent return) also are included.

174 Wilson, Thurlow R., et al. Disabled Veterans of the Vietnam Era:
EMP Employment Problems and Programs. Alexandria, VA: Human
GV Resources Research Organization, 1975, 332 pp. ERIC ED 106 526.

The report describes the results of a study of the employment of Vietnam-era veterans with service-connected disabilities, their major problems in seeking and holding a job, and possible solutions. Data were obtained from: mail surveys of both disabled veterans and employers regarding employment; personal interviews with veterans and employers; telephone interviews with long-term unemployed disabled veterans; personal interviews with State Employment Service and Veterans Administration personnel; a study of services by various veterans' organizations; and evaluations of programs for training or hiring disabled veterans.

175 Love, Harold D. Teaching Physically Handicapped Children.
GEN Springfield, IL: Charles C. Thomas, 1978. 165 pp.
ARC
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This book emphasizes educational and psychological evaluation of the student aimed at vocational placement.

At the beginning the author describes specific handicaps and prognoses. Other chapters discuss testing procedures, teaching language arts and math, teaching methods for special groups, architectural barriers and the school's responsibility for vocational placement of the student.

176 Meyerson, Lee. "Somatopsychology of Physical Disability." Psychology
GEN of Exceptional Children and Youth, edited by William M. Cruickshank. Englewood Cliffs, NJ: Prentice-Hall, Inc., 1971, pp. 1-23.

Somatopsychology is the study of some of the relationships that bind physique and behavior. The varying theories of the relationship are stated and discussed. What is "normal" depends on culture and other variables. The author discusses the social and emotional handicaps imposed by variations in physique. Science and theory in somatopsychology as it relates to the understanding of the physically handicapped is discussed.

177 Pahz, James Alon, and Cheryl Suzanne Pahz. Total Communication.
HI Springfield, IL: Charles C. Thomas, 1978. 115 pp.

The book traces the history of education for the deaf with an in-depth look at the emerging philosophy of total communication. The practical considerations in the implementation of a total communication program are discussed.

This book will be valuable to the educator, administrators, parents and the deaf person.

178 Cull, John G., and Richard E. Hardy. Vocational Rehabilitation:
GEN Profession and Process. Springfield, IL: Charles C. Thomas,
LEG 1972.

The editors have brought together readings by various authors to cover vocational rehabilitation. The beginning is a history of the rehabilitation movement in America including the legislation. William Phelps writes about the philosophical considerations in rehabilitation and work. Richard Hardy discusses vocational placement and Joe Morrow outlines the vocational rehabilitation-public education cooperative program.

179 Rusk, M.D. Rehabilitation Medicine. St. Louis, MO: The C.V.M
GEN Mosley Company, 1964. 668 pp.
EMP
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This book is written for medical personnel but parts of it are appropriate to the individual who is interested in vocational rehabilitation. The first part of the book states the philosophy and need of rehabilitation. Chapter 14 outlines the principles in the management of vocational problems and Chapter 27 deals with geriatric rehabilitation. The writing is easily understood by non-medical persons.

180 Walker, Robert A. "Vocational Assessment and Management," from
GEN Handbook of Physical, Medicine, and Rehabilitation, 2nd edition,
EMP edited by Frank H. Kunsen, Frederic J. Kottke, and Paul M.
R Ellwood, Jr.. Philadelphia, PA: W.B. Sanders Company, 1971. pp. 208-221.

The team approach to rehabilitation is discussed in this article. It is a joint effort of medicine and social services. The problems of the physician and vocational counselor are outlined. Evaluation methods are suggested along with the different kinds of services available to the handicapped person who is willing to be rehabilitated.

181 Larkin, Timothy, and Carl Sharek. "Volunteer Power for the Handicapped,"
GEN Manpower; 7; 5; May 1975, pp. 7-11.

This article describes a pilot project sponsored by the Women's Committee of the President's Committee on Employment of the Handicapped. The project used volunteer groups in three different locations in the United States. The volunteer effort had these concerns: (1) changing public attitudes about the capabilities of the handicapped; (2) removal of architectural barriers that impede the handicapped in getting to or doing a job; and (3) finding job openings and helping the handicapped compete for them.

182
GEN
M

Martin, Edwin W. "New Public Priority: Education of Handicapped Children," Compact, August 1971, pp. 4-7.

Dr. Martin reflects the view of the handicapped. He establishes the need for special education by emphasizing the individual as well as by cost effectiveness. He emphasizes the need for a joint commitment by state and federal government.

183
GEN

Burnett, Wanda L. "Who Handicaps the Handicapped," American Corrective Therapy Journal, 1974, 28 (3), pp. 71-76.

The author sets the stage with quotes from recognized writers and handicapped people. She then defines "impaired," "disabled," and "handicapped." The article traces the attitudes and emotions of society toward the handicapped.

184
GEN
EMP

Jones, Ron. "CETA'S Problems with Hiring the Handicapped," Worklife, Washington, DC: Department of Labor, May 1977, pp. 21-24.

Jones describes the plight of the handicapped in seeking jobs with CETA programs. He offers explanations and suggestions for programming to get more handicapped employed.

185
GEN
EMP

Whigham, Barney R., and Bruce D. Mattson. "Attitudes Influencing Employment of the Handicapped," Journal of Employment Counseling, 6; 2; 72-78, June 1969.

This study investigates the effect of existing attitudes on employment practices of Texas employers who employ the physically handicapped. Along with personal interviews, all participants were administered the Survey of Interpersonal Values and the Action, Cognition, and Emotion Test. The results of the research and the conclusions of the researchers are reported.

186
GEN
LEG
ARC

Kirk, Larry B. "Design for all Americans," HUD Challenge, March 1975, pp. 30-32.

The article covers some basic statistics on handicapped people. The laws concerned with buildings are cited and the advantage to creating barrier free buildings are discussed--both to the handicapped and non-handicapped.

187
GEN
VI
OI
GV
M

Caddel, Kay. "Meeting Special Needs," Tips and Topics, Vol. XVIII, No. 4, Summer 1978, p. 3.

The article gives sewing tips to use in teaching the blind to sew. The second section discusses designing clothes for the handicapped person.

188
EMP
VI
C

"Lincoln Land: A College on the Move," Community College Frontiers, 3 (3), pp. 28-31, 1975.

Lincoln Land Community College serves a population with a mixture of industrial, agricultural, and commercial interests in a geographical area of 3,420 square miles. This article describes its special programs for the blind, the placement of its graduates, and some of its programs and problems.

189
GEN
EMP
R

Rusalem, Herbert, and David Malikin. Contemporary Vocational Rehabilitation. New York: New York University Press, 1976. 250 pp.

The authors have written sections of the book and edited other sections written by experts in their fields. The first section of the book discusses current issues, recent history, vocational development problems of the handicapped and attitudes toward disability. The second section deals with the rehabilitation of certain groups and job placement.

190
GEN
LEG
R

Feingold, S. Norman. The Vocational Expert in the Social Security Disability Program. Springfield, IL: Charles C. Thomas, 1969. 285 pp.

This book has been written specifically as an orientation for new vocational experts as they enter into the program under contract with the Bureau of Hearings and Appeals, Social Security Administration. Also included is the 1965 Revised Dictionary of Occupational Titles and some suggestions on doing vocational surveys.

191
GEN
S

Anderson, Daniel R., Gary D. Hodson, and Willard G. Jones. Instructional Programming for the Handicapped Student. Springfield, IL: Charles C. Thomas, 1975. 1008 pp.

This monumental book is bulky but will be useful to the teacher of the handicapped. The chapters are very clearly laid out with an overview and objectives stated. Instructional programs are included on the following skills: appearance, arithmetic, attending, cleanliness, concepts, domestic and vocational, dressing, eating, motor, sight vocabulary, socialization, speech and language, toileting, and writing.

192
BO

Martin, M.J. "Learning to Type with One Hand," Journal of Business Education, 49 (7), p. 305, 1974.

Trying to teach a one-handed person to type in the same fashion as a two-handed person is a mistake. Each handicapped person has to adapt to his own capabilities. The writer outlines the stages she went through in learning to type with one hand.

193
GEN

Yuker, Harold E., J.R. Block, and Janet H. Young. The Measurement of Attitudes Toward Disabled Persons. Albertson, NY: Insurance Company of North America, INA Mead Institute at Human Resources Center, 1970, 110 pp.

This is a report on research pertaining to the measurement of attitudes toward disabled persons. It includes a comprehensive review of literature and cites the results of studies done all over the country with a variety of instruments.

194
ARC
GEN
HH
M

Dykes, Roger. Rolling Down Comedy Lane. Lubbock, TX: Crip-Co Productions (Box 10314 79408), 1977.

Mr. Dykes is a professional comedy writer and entertainer who is confined to a wheelchair as a result of cerebral palsy. He discusses the architectural and social barriers to handicapped people and offers suggestions on how some of those barriers can be partially removed. Some of his advice is for the handicapped individual.

195
LEG

Federal Register, Public Law 93-516. December 7, 1974, pp. 1617-1634.

This section of the law includes the Amendments to the Rehabilitation Act of 1973 (Title I), the Randolph-Sheppard Act Amendments, (Title II), and White House Conference on Handicapped Individuals (Title III).

196
EMP
GV
M

Pre-Employment Competencies. Handicapped/Disadvantaged Project, Sauk Area Career Center, 138th and Crawford Avenue, Crestwood, Illinois 60472, updated, 51 pp.

One of the goals of the Sauk Area Career Center is to aid students in the development of the pre-employment skills necessary to successfully function in our competitive job market. This book presents lesson plans to teach these skills and was designed to become a part of the vocational programs.

197
ARC

Johnstone, B. Kenneth. Designing Schools and Schooling for the Handicapped. Springfield, IL: Charles C. Thomas, 1975. 229 pp.

The aim of the book is to establish guidelines for planning and designing teaching space and related services to maximize the education of children who are handicapped by body impairment, by mental, emotional, or social dysfunction or learning disability. (Includes "checklist" of considerations in the Location of Special Education Physical Plant and Facilities, p. 103).

198
GEN
R

Garrett, James F., and Edna S. Levine. Rehabilitation Practices with the Physically Disabled. New York, NY: Columbia University Press, 1973. 569 pp.

This book is an effort to show the variety of disabilities with which rehabilitation deals and the various facets of the process--physical, mental, social, vocational, and economic.
The disabilities are dealt with individually in detail. The human rights issue is discussed. The last part of the book gives the international picture of rehabilitation.

199

Wallin, J.E. Wallace. The Education of Handicapped Children. Boston: Houghton Mifflin Company, 1924. 485 pp.

Description and history of treatment of handicapped people.

200
GEN
HE

Rehabilitation for Independent Living: A Selected Bibliography. Prepared by the Center for the Family (American Home Economics Association) in Washington, DC. Washington, DC: Women's Committee and President's Committee on Employment of the Handicapped, March 1978. 33 pp.

The bibliography covers such areas as early childhood, clothing, home management, homes and home furnishings, meal management, transportation, communication, architecture and personal aspects for the handicapped. The forms include books, pamphlets, motion pictures, film strips and slides.

201
EMP
R

Grigg, Charles M. and et al. Vocational Rehabilitation for Disabled Public Assistance Clients: A Follow-Up Study of Four Projects. Tallahassee: Florida State University, 1972. ERIC ED 078 120.

A follow-up study of handicapped people who were on welfare which looked at employment average income and amount of personal involvement by the professional staff.

202
ARC
LEG

"The Architectural Barrier Flap. Will Common Sense Prevail?" Phi Delta Kappan, February 1978, pp. 435-436.

Explanation and interpretation of the Architectural Barriers Act of 1968 (P.L. 90-480).

203
LEG

"Enforcement Officer Says Schools Must Deliver Education Needed by Handicapped, Not Just What's Available," Phi Delta Kappan, February 1978, p. 433.

An interpretation of P.L. 94-142 and Section 504 of the Rehabilitation Act of 1973.

204 Turnbull, H. Rutherford, III. "Accountability: An Overview
LEG of the Impact of Litigation on Professionals," *Exceptional Children*, March 1975, pp. 427-433.

The author defines the issues in accountability and the underlying principles involved. The legal theories involved are discussed along with judicial responses. The professions most involved are discussed. The author concludes that the courts will be asked to make more decisions concerning the handicapped and that these decisions will improve conditions for the handicapped.

205 Licht, Sidney, M.D. "Rehabilitation Medicine: Definition and Origin,"
GEN *Archives of Physical Medicine and Rehabilitation*, November 1970, pp. 619-624.

Dr. Licht defines rehabilitation medicine, traces its history beginning with Heinrich Sebastian Frenkel of Germany. He describes Kvouindjy's kinesitherapy, Andre's functional bracing, Raymond's functional reeducation, Tissot's concepts of therapeutic exercise and Delpech's Scoliosis Rehabilitation Center.

206 Bayne, G. Keith, Kenne G. Turner, and Rebecca Jackson. "Vocational
GEN Education for the Disadvantaged and Handicapped--Kentucky Needs Assessment," A Kentucky Vocational Technical Education Report. Development Unit, Kentucky Bureau of Vocational Education, Kentucky Department of Education, July 1, 1977, 192 pp.

This study which is in this report sought to identify handicapped and disadvantaged in Kentucky, identify available programs, identify those who could benefit from program, define present program limits, provide follow-up data and recommendations along with cost analysis of recommendations.

207 Phelps, F. Allen. *Compentency Based Inservice Education for Secondary
GEN School Personnel Serving Special Needs Students in Vocational
GV Education: A Formative Field Test Evaluation*. Final report.
M Urbana, IL: University of Illinois--Department of Vocational and Technical Education, June 30, 1976. 362 pp.

This large report is the result of a project focused on the formative evaluation, revision and production of a set of inservice teacher education modules designed to enhance the instructional development competencies of vocational and special education. There is also a useful set of inservice education resource materials, a number of guidelines and suggestions for the development, evaluation, and revision of small-scale instructional products.

208 Roman, J.C. "Business Education Bibliography for Mainstreaming
GEN Special Needs Students." Southwestern Publishing Company, Kentucky Business Education Association, The Stairways, Louisville, Kentucky, April, 1978, 3 pp.

This collection contains books, articles and pamphlets on disadvantaged students, including the physically handicapped. The readings would be of particular interest to both the administrator and teacher in a vocational training program.

209 Cox, R.M. "Typewriting Instruction for the Handicapped." *Journal of
GEN Business Education*, 501, No. 7 (1975), pp. 277-283.
BO ERIC EJ 115 532.
S

To be effective in teaching handicapped students to type, the teacher should be trained in the methods of teaching typewriting and should have a full understanding of each handicapped student.

210 *Rehabilitation of the Physically Handicapped in Homemaking Activities*.
GEN Proceedings of a Workshop. Highland Park, Illinois, 27-30 Jan.
HE 1963, U.S.D.H.E.W., Vocational Rehabilitation Administration
R and the American Home Economics Association, 233 pp.

This is a record of the proceedings of the first national interdisciplinary workshop in rehabilitation of the physically handicapped in homemaking activities. The papers covered the topics of programs already in action, available resource materials, training of professional personnel for programs, current research (1963) and some guidelines for the future. (Good, but old bibliography of books and films.)